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ADDRESSES

LITERARY AND ACADEMIC

BY

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ADDRESSES.

UNIVERSITY CONVOCATION

2nd March 1907.

Your Excellency, Your Honour, Ladies and Gentlemen,

In accordance with established usage, handed down by my predecessors, it is now my duty and privilege to address the Senate and the Graduates, to review in brief outline the progress of our academic work since we last met in Convocation, and to exhort the graduates of to-day to conduct themselves in a manner worthy of the Degrees to which they have been admitted.

During the last twelve months, we have lost from our ranks some of our most devoted workers who have served the University and done it honour in the past, and it befits an occasion such as this, that we should hold their memory in affectionate remembrance. In Pandit Mahes Chandra Nyayaratna, we have

lost an indefatigable worker in the cause of promotion of Sanskrit learning in these Provinces. As Principal of the Sanskrit College, as President of the Board of Studies in Sanskrit, as a member of the Syndicate, and as an examiner for many years, he gave us the benefit of his deep erudition and varied experience; and his successful efforts to secure recognition, by the Government and by the University, of the just claims of graduates in Sanskrit, will be long remembered with gratitude. In Mr. Ananda Mohan Bose, we have lost one of the most brilliant graduates of this University, the first of the long series of Indian students who have subsequently distinguished themselves at a European University and thus reflected credit on their Alma Mater. As one of our most zealous workers for over a quarter of a century, as a member of the Syndicate, as our representative in the Provincial Council, as a member of the Education Commission of 1882, and as the founder of what is now one of the foremost Colleges of this city, his contribution to the progress of education has been of permanent value and of a character of which the most distinguished citizen might well be proud. His practical sympathy for students, his endeavours in the cause of purity and morality, his efforts for the promotion of female education, his remarkable independence tempered by native

gentleness and humility, his piety, his blameless integrity, and the nobility of his character made him an object of love and reverence amongst his countrymen. In Mr. Woomes Chunder Bonnerjee, we have lost a striking personality, a distinguished lawyer who attained the highest eminence in his profession. As President of the Faculty of Law, as member of the Syndicate, and as our first representative on the Provincial Council, he gave evidence of his wide and varied culture and of his robust common sense and sturdy independence of character; and the graduates of this University are indebted to him for his successful efforts in the cause of recognition of their legitimate claims to University appointments.

By the death of Babu Kalicharan Banurji, we have lost from our ranks one of the most gifted men who have ever adorned the Senate and conferred dignity on it by their association. During a period of thirty years, he devoted himself to academic work, in various capacities, with a zeal which has been rarely equalled; he sacrificed his health in the interests of the University during the period of stress and transition through which we have just passed, and even a few days before his death, he cheerfully did for the Board of Studies in Law, work which required considerable thought and research. Brilliant as an

orator and enthusiastic as a teacher, he endeared himself to more than one generation of students, whose veneration for him was equalled only by his devotion to their best interests. In him was combined in a remarkable degree, modesty with individuality, moderation with firmness, sweetness of temper with manliness of character, and acuteness of intellect with soundness of judgment. By reason of his signal services to the cause of education, purity and philanthropy, which were all animated by a deep religious fervour, he was respected and admired, alike by Indians and Europeans, by Hindus, Mahomedans and Christians ; and his name will be handed down to posterity, and his memory will be cherished as that of a man of sterling character who might rightly be regarded as one of the most cultured and refined products of English education in this country. In Babu Bholanath Pal we have lost a teacher of experience and reputation, who gave us the benefit of his learning in the deliberations of our Boards of Studies. In Maulavi Abdul Hai, we have lost a profound Arabic scholar of a type somewhat rare in these days, and his advice in matters of Arabic learning was as eagerly sought after as it was readily given. In Babu Jogendranath Sen, whose career of usefulness was cut off in the prime of life by a lamentable accident, we

have lost an earnest worker who had considerable experience of educational matters, both as a Professor and as an Examiner. Mr. Macfarlane, whose loss is mourned by a large circle of friends, took considerable interest in our work, and by his death, we have been deprived of the benefit of his experience and advice which would have been invaluable in the matter of re-organization of our Library. In Mr. Ralph Thomas Hotchkin Griffith, we have lost one of the most honoured names in our roll of Honorary Fellows. He was closely associated with the work of the University at a time, when the whole of Northern India was within its jurisdiction. His splendid versions of the immortal epics of Válmiki and Kálidása, as also his translations of the Vedas, will long be admired by all who can appreciate the spirit of the East. By the death of Pandit Lakshmi Sankar Misra, and by the retirement of Mr. T. C. Lewis, the cause of education has lost officers of great distinction who were at one time in close and constant touch with the work of the University, but whose connection with us practically ceased upon the foundation of the University of Allahabad. By the retirement of Dr. Prain, we have lost the services of a scientist of great reputation, who was always ready to help us in the department which was specially his own. By the retirement of Mr.

Alexander Macdonell, Principal of the Presidency College, we have lost one of our most devoted workers, who enjoyed the confidence and admiration of his students as well as of his colleagues, and whose modesty, perhaps, stood in the way of a full recognition of his great abilities. By the retirement of Mr. Justice Pargiter, who was for some time President of the Faculty of Law, we have lost the services of an accomplished scholar who was quite as familiar with the literature of the East as of the West. By the retirement of Mr. Pope, Director of Public Instruction of Burma, we have been deprived of the benefit of the experience of an educational officer who was in close touch with our work for a period of thirty years. By the retirement of Sir Alexander Pedler, we have lost one of the ablest members of the Indian Educational Service. For a period of thirty years, he associated himself with the work of the University with a zeal and devotion which has scarcely been surpassed, and by the conspicuous services which he rendered as Registrar, as member of the Syndicate, as President of the Faculty of Arts and as Vice-Chancellor, he has earned the lasting gratitude of every member of the University. Last, but not the least, we have to mourn the loss of one who, though not our Fellow, was one of our greatest benefactors,

Mr. Premchand Roychand of Bombay, that enlightened Prince of Merchants, whose magnificent generosity to this University, quite as much as to the University of his native Province, called forth the admiration of Sir Henry Maine. It is not much to the credit of the wealthy aristocracy of these Provinces, that his princely benefaction has not been liberally imitated.

During the last twelve months, the one event of paramount importance to the progress of our academic work has been the completion of the New Regulations. I have not the remotest desire to re-open controversies which have been laid at rest for the present, because in all efforts at reform, a period is ultimately reached, when debate and discussion must be closed and solid work undertaken. At the same time, it may not be undesirable to invite attention to points of fundamental importance and the principles which underlie them, as they mark an epoch in the progress of education in these Provinces. The first of these points, which exceeds in importance all other matters covered by the Regulations, is the control of the University over the Affiliated Colleges. Under our Act of Incorporation, when our sole function was to conduct examination and confer Degrees, although we imposed our Courses of Study upon Affiliated

Institutions, and thus indirectly regulated the methods of study pursued in our Colleges, we never attempted to exercise any direct control over them. (Under the new Regulations, the Colleges must be regarded as an integral part of the University, and it is the first duty of the University to secure their efficiency. This marks a distinct stage in the widening of our conception of the functions of a University.) We are no longer a purely examining body, prescribing Courses of Study, fixing standards, testing candidates and putting the seal of our approval on them. A duty is imposed upon us now to satisfy ourselves that the Institutions in which these candidates have been trained, are maintained in a state of efficiency, and are worthy of continued affiliation to the University. This obligation has been imposed upon us, not only in respect of Institutions which may in future seek affiliation, but it extends to all such existing Colleges, as may desire to continue the privileges which they may have hitherto enjoyed. It may be conceded, that to enable existing Colleges to attain the standard of efficiency contemplated by the new Regulations, strenuous effort on the part of all interested in their welfare, will be essential during the next few years. But I do not entertain any apprehension that honest effort at reform will not meet with success and recognition. The

standard of efficiency is by no means an impracticable one, and may, without difficulty, be attained, if individual Colleges will concentrate their attention upon selected subjects. It cannot be disputed, that much of the inefficiency of our Colleges, is attributable to a desire, that each College should undertake almost every possible subject, rather than confine its attention and devote the energies of its teaching staff to an adequate treatment of a few branches of knowledge. Henceforth, specialization ought to be the aim of all Institutions, and if they work in harmony, a high state of efficiency may easily be attained, without any possible hardship to students, as, at the same time, they can enjoy the benefits of inter-collegiate lectures. It is hardly necessary to mention that although the University desires that the Colleges should be maintained in a high state of efficiency, and although, there would be periodical inspections to secure that the standard is maintained, there is not the remotest intention, needlessly to interfere with the internal management of Colleges. Although the Colleges constitute the University, and although for the sake of sound education and for the reputation of the University, each of its affiliated Colleges must be maintained in a state of efficiency, each College, by itself constitutes an entity, a self-governing

body, with the internal administration of which the University cannot legitimately interfere,—so long at any rate as efficiency is successfully maintained. If the authorities of the Colleges are animated by a desire to raise their status and to improve their efficiency, as I believe they all are, there is no possible room for any apprehension, that the control and supervision of Colleges by the University can lead to any result, which would be otherwise than beneficial to the cause of high education.

(The next point of vital importance with which the *Regulations* deal, is the control of the University over recognised schools. The relation of the University to its recognised schools is a matter of some difficulty, and has never been hitherto satisfactorily dealt with. Under the system which has prevailed for many years past, by far the largest majority of the schools recognised by the University have been practically without any control and supervision. The limited number of schools which are maintained by the Government or which, though owned by private individuals, are in enjoyment of aid from the Government, are periodically inspected by Government Inspectors, though the inspection is, perhaps, not as frequent and systematic as may be desired. There are, however, hundreds of schools

throughout the Province, which are neither owned nor aided by the Government, which prepare candidates for the Entrance Examination, and are recognised by the University as qualified for the purpose. Many of these schools are maintained in a state of efficiency, but there are many more, which are much below the standard of efficiency contemplated by the new Regulations. The Regulations, therefore, provide for adequate control and supervision of all schools which enjoy the privilege of presenting candidates at the Entrance Examination. The University has conferred upon them this valued privilege, and the University is entitled to demand of them that they be maintained as places where sound education is imparted, and discipline is enforced. I do not think that it can rightly be suggested, that the University in this matter goes beyond its legitimate province of high education, and encroaches upon the jurisdiction of secondary education. (It may be conceded that the University, as such, has no direct relation to secondary education, except in so far as secondary education leads to high education. From this point of view, such schools as prepare for the University ought to be under the control and supervision of the University. Education in the University is the development, the amplification, of school education, and on some issues, its

complement.) If the preliminary training is not adequate, if young men whose attainments do not plainly indicate that they are qualified to profit by a course of University Studies, are allowed to enter Colleges, it would be impossible to keep University education at the proper standard. The University, therefore, should have authority, not only to select the schools from which students may be allowed to present themselves at the Matriculation Examination, but also to satisfy itself from time to time that schools once recognised continue to be maintained in a state of efficiency. I feel convinced that the power now conferred on the University, if it is wisely and firmly administered, as I hope it will be, will materially strengthen the cause of discipline and produce far reaching consequences in the direction of elevating the tone and standard of secondary education throughout these Provinces.

Another important portion of our Regulations deals with the question of the residence of students. The problem of the residence of students is admittedly one of great difficulty, because the experiment has not been tried for a sufficient length of time, and the widest divergence of views prevails upon the subject. One aspect of the matter, however, is beyond the pale of all controversy. It is the duty of all Colleges, not only to maintain intellectual

discipline among their students, but to provide for their moral and physical welfare. If our boys are to grow up into healthy manhood, it is not enough that their intellectual faculties should be developed ; it is essential, that they should possess a healthy mind ; they must be sedulously kept from the path of temptation ; they must be, to use a homely expression, housed and fed. Where they do not reside with their parents or guardians, the responsibility in this matter must be thrown upon the authorities of the Colleges of which they are the members. On this ground alone, Regulations for the residence of students are absolutely indispensable, and the Regulations which have been framed are, I believe, sufficiently stringent and at the same time practicable under the existing conditions. I am not unmindful, that the work is one of some difficulty and delicacy, and a great deal of the success of the system must depend upon the manner in which the Regulations are enforced by the Students Residence Committee. The questions they will have to decide, may affect the mode of life and the manners and social customs of our students ; and if they are unable to realise the position of the students and to appreciate the effect of the social and religious surroundings in which they have been brought up, any unwise action on their part may lead to the failure of the residential system and end

in disastrous results. If, however, the authorities of all the Colleges loyally and cordially co-operate with the University, and if the University proceeds with caution in this matter, the system, which must still be regarded as in an experimental stage, cannot fail to be productive of beneficial results to our students. I make no reference to another aspect of the question, which for the present, at any rate, must be deemed to be beyond the domain of the practical politics of our academic life. If the residential system ultimately takes root and obtains a firm hold of the mind of our people, as I fervently trust it will, the time may come, when all our Colleges will be converted into truly residential Colleges of the type so familiar in the Universities of the West. (Then and then alone will there be the growth of corporate life amongst our students, and each College will fittingly be described as a corporation of teachers and students banded together for the promotion of learning.) The question, however, is ultimately reducible to one of finance, and even with the aid of the liberal contributions of the Government of India, for which we are deeply grateful, we find it impracticable to make even an appreciable beginning. But I am optimistic enough to believe, that the time is not far distant when we shall find ourselves in a fair way to realise this ideal—

an ideal which it would be a mistake to suppose, is Western in origin and conception. (According to the ancient Indian ideal, the student must, during the period of his pupilage, reside with his preceptor, serve him loyally and faithfully, and, when he has finished his studies and entered the world, retain for ever the influence of the stimulus and inspiration he has received. May our students of the future cease to regard examinations and Degrees as the sole end of University education, and realise that the discipline of the intellect, and the formation of character are far more momentous than absorption of knowledge and attainment of academic honours.)

It would be impracticable within the time at my disposal to make any but the briefest reference to the changes of a fundamental character which have been introduced by the Regulations for the various Examinations of the University. I have not the slightest desire to enter into the field of controversy, for it must be conceded, that there is room for wide divergence of views upon many of the intricate questions with which these Regulations necessarily deal. But it would be useful to refer to the leading principles, because as soon as they are realised, they cannot fail to affect the mode of training imparted to our boys and young men. The aim of the Regulations

throughout has been to simplify the Examinations, to distinguish between the essential and the non-essential, to allow all students a wide choice and free scope as regards the latter, but to demand thoroughness of knowledge from every candidate in the subjects of his choice. At the Matriculation stage, the courses must be so framed, as to include subjects that would train and develop some power of expression, some power of reasoning, and some power of observation. To give the student some power of expression, unquestionably the best medium is his own language in the first place, with the structure and literature of which he ought to have a tolerable familiarity. The Regulations consequently insist upon a knowledge of a student's own vernacular and a power to practise composition, as essential at all stages of his career from Matriculation to Graduation. This recognition of the claims of the Indian vernaculars will, I believe, have far reaching consequences of the healthiest character. But in addition to a knowledge of the vernacular, a student must, in order that he may have an adequate literary training, cultivate the power to write clear, simple and correct English and to form an intelligent comprehension of plain modern English on familiar subjects. He must in addition acquire some knowledge, accurate so

far as it goes, of one classical language. If these languages are intelligently taught, if the student is made to appreciate the contrast of the languages in idiom, diction, method and manner, he ought to derive considerable intellectual discipline, and his power of expression ought to be developed on the right lines. To give him some power of reasoning, he must learn the elements of Mathematics, which include a training in Geometry beginning with experimental work and gradually introduce him to the processes of Geometrical reasoning. To ensure that he cultivates his power of observation, it would be desirable to give him the rudiments of experimental physics or mechanics or inorganic chemistry. This, however, has not been found to be practicable, as by far the largest majority of our schools, have no adequate equipment for the teaching of experimental subjects. The student is, therefore, allowed a choice of subjects which include a general knowledge of the History of his country and a general knowledge of the Geography of the world. It is obvious that a course of training of this description, if it is rightly pursued, and if unintelligent memory work is discarded, is bound to develop the intelligence and to qualify the student for admission to a course of University studies. No exceptional ability is needed in a student to

complete such a course at the age of sixteen. The one element essential for the success of the system is that the students should be properly trained from their earliest years, that they should be trained not merely to acquire a certain amount of knowledge, but also to exercise their power of expression and their power of reasoning. As regards examinations other than the Matriculation, thoroughness is demanded as the dominating quality in every study, and this cannot rightly be regarded as a hardship, as students are allowed a wide choice of subjects. In the Faculties of Law and Medicine, changes of a fundamental character, which are calculated to promote thoroughness, have been introduced. In the examinations in the Faculty of Law, this has been secured by the introduction of the system of teaching by cases and the holding of classes for the discussion of legal problems, which is now recognised as an effective method in all modern law schools where Law is taught as a science. In the case of examinations in the Faculty of Medicine, the period of study for a Degree has been increased by one year, so as to give time for adequate practical training and Hospital duties. A Degree in Teaching has been instituted, which it is not too much to hope, will encourage persons who are or intend to be professional teachers to turn their

attention to the theory and methods of teaching. Lastly, we have instituted the Degree of Doctor for the recognition and promotion of Original Research.

There is only one other point in connection with the new Regulations to which it is my duty to invite your attention, I mean the Regulations which deal with the appointment of University Professors, Readers and Lecturers. Although the time may be distant when we shall be in a position to have a number of University Professors, and although perhaps we can afford to have University Readers and University Lecturers only on a somewhat limited scale at present, the Regulations in respect of these matters, are in one sense of paramount importance. These Regulations indicate that the University is no longer to be a merely examining body with power to grant Degrees; it is not even to be merely a federation of Colleges; it is to be these and a great deal more. It is ultimately to be a centre for the cultivation and advancement of knowledge. This is unquestionably the true ideal of a University, and the realization of this stimulating ideal, though it may be attended with difficulties, is imperative and is by no means impracticable. Among the brightest signs of a vigorous University, is zeal for the advancement of learning,

and the true function of a University is not merely the distribution of knowledge, but also its acquisition and conservation. Every Professor must be a student, and every advanced student must be animated by a higher ideal than mere absorption of knowledge. You cannot, it may be, secure this by Regulations, nor can you expect the fulfilment of this ideal from every Professor and every advanced student. But while it is manifestly the duty of a Professor to assimilate existing knowledge, he has a higher duty to perform, up to the limits of his powers and his opportunities—he must make strenuous effort to contribute to the increase of knowledge and the advancement of truth. It is also the duty of the best and most capable amongst our advanced students, so far as time and opportunity permit, to undertake a course of post-graduate study and research. Unless the University can show a substantial amount of research, produced by the aggregate of its Professors, and unless it can show that it has trained a substantial number of able and willing workers to carry on research in the different branches of knowledge, the University can hardly be regarded as approaching the realization of its ideal. The University is legitimately entitled to claim that ample funds should be placed at its disposal, either by the

Government or by the wealthy aristocracy of these Provinces or by both, to enable it to discharge its duties adequately in this matter. I have heard it said, however, that even if provision is made for University Professors, and even if opportunities are afforded to our students for post-graduate research, how few are the intelligent young men who are likely to avail themselves of the benefit of these advantages. I am by no means persuaded that the number would be relatively smaller than in other seats of learning, where similar conditions prevail. But, even if the number be smaller, it would not, from my point of view, affect the value and importance of the system. You cannot estimate intellectual work by numerical standards alone. It is absolutely wrong to apply statistics to the case of Institutions like Universities where the highest form of knowledge has to be cultivated. It is not the number but the quality of students, it is not the *quantum* of knowledge but the character of the training which is received, that determines the position of the University. This is pre-eminently a matter in which it may fittingly be said, that although it is important to count, it is much better to weigh. It is the paramount duty of the University to discover and develop unusual talent. No University is worthy of its reputation

which does not enrol among its Professors, men best fitted to advance the bounds of knowledge, which does not relieve them of administrative and tutorial work and thus place them in a position consistent with the most effective discharge of their legitimate duties. (No University can rightly be regarded as fulfilling the purpose of its existence, unless it affords to the best of its students, adequate encouragement to carry on research, and unless it enables intellectual power whenever detected, to exercise its highest functions.' I trust, I have said enough to indicate that the work which lies before us will, by its very vastness and complexity, tax the best energies of all Members of the University for many years to come. To improve the Colleges, to reform the Schools, to re-organize the whole system of teaching by which knowledge is brought home to our young men, to make adequate provision, not merely for their intellectual but also for their moral and physical welfare, and last but not the least, to turn the University into a centre of intellectual activity, will require the united effort of the Members of the Senate and the faithful co-operation of all who are vitally interested in elevating the tone and standard of University education in these Provinces.

After this imperfect retrospect and prospect of academic work, I must now address a few

* words of advice and encouragement to the young men who have just been admitted to their Degrees.*

Graduates of to-day—Do you realize fully the true import of the Degrees to which you have been admitted, and do you realize the responsibilities which you will incur when you are sent forth into the world, stamped with the seal of approval of your University and accredited with the honour of her Degrees? Those amongst you who have been admitted to the Degree of Bachelor in any of the Faculties, have attained the status of apprentices as opposed to the Master Workman; you have qualified yourselves for admission into the temple of learning; you have merely taken the first of the steps by which the distinction of a full membership of a guild of teachers and scholars is to be attained. Those amongst you who have been admitted to the Degree of Master, have given further evidence of your skill; you have made considerable progress and acquired deeper knowledge of your special subjects. But it would be a lamentable mistake to suppose, that whether Bachelors or Masters, your education has been finished. Remember, that your special education but now begins, and remember further, that you will no longer have the advantage of the guidance of your conscientious teachers; henceforth, you must be

your own teachers, and self-education will become to each one of you a sacred task and solemn duty. This life-long pursuit of knowledge is essential, not merely for the sake of your individual enlightenment, but also for the amelioration of millions of your countrymen, who for many years to come, will not have the benefit of Western thought and Western culture. It ought to be your pleasant duty, as it is your proud privilege, to be the interpreters of Western culture to the Eastern mind. Assimilate, therefore, all that is best and of abiding value and interest in Western literature, Western philosophy and Western science, and communicate the result to those amongst your countrymen who have not been favoured like yourselves and have not enjoyed the benefits of an English education. At the same time, though steeped in the culture of the West, disregard not all that is most sublime in Indian thought and all that is best in Indian manners and customs. Neglect not, in the glare of Western light, the priceless treasures which are your inheritance. In your just admiration for all that is best in the culture of the West, do not, under any circumstances, denationalize yourselves. Do not hesitate to own at all times that you are genuine Indians, and do not fail to rise above the petty vanities of dress and taste. Above all, sedulously cultivate your vernaculars, for it is through

the medium of the vernaculars alone, that you can hope to reach the masses of your countrymen and communicate to them the treasures you gather from the field of European learning. Forget not, however, that your responsibilities in this matter will be of the gravest character. You ought to be the trusted interpreters of the West to the East and of the East to the West. In the discharge of this noble duty, may you never deviate in the least from the straight path of rectitude, honour and wisdom. May you be the faithful representatives of England's good will to India and of India's claims on England, and may you in this manner, remove distrust and misconception and spread mutual confidence and mutual light. In this matter, as in all others, act with caution and moderation. Judge and examine for yourselves every question that comes before you, with care and thoroughness. Evade not difficulties when they face you, but solve them to the best of your ability. Satisfy not yourselves with convenient or comfortable doctrines, merely because they appeal to your feelings or imagination and are propounded with an air of authority or dogmatism. Sternly examine them, and accept them, only if they stand the test of truth and reason. But, at the same time, be tolerant of the opinions of others, and be charitable in your interpretation of their motives and actions; for remember

that true independence of character is perfectly consistent with a feeling of reverence where reverence is justly due. Above all, be grateful to your University and be loyal to her interests throughout your career. True it is, that your University is not the growth of centuries and that as yet, there is no ancient tradition to be maintained as in the case of the older Universities of Europe; but that only makes it imperative upon you to cherish the fair fame of the University of which you are members from this day forward. Her reputation has yet to be made, and it is incumbent on you to make it for her, for as the tree can only be judged by the quality of its fruits, the University can only be judged by the conduct and character of her sons. All the strenuous efforts of the University to elevate the level of high education will be fruitless, if you do not stand forth conspicuous amongst your countrymen, both for learning and for virtue. A vigorous University exercises a beneficent influence upon the life of a nation, not merely by its contribution to the success and material welfare of the people, but also because its teachings dominate the actions of men and produce a profound, if imperceptible, influence upon the course of civilization. While you devote yourselves, therefore, to the conscientious discharge of the duties for which you have been fitted by

the education you have received under the auspices of the University, forget not the interests of the University which has ratified and stamped your efforts. In whatever sphere of life your lot may be cast, watch with anxious solicitude the progress of the University, and remember always that your actions will affect her reputation and that it is only by your loftiness of purpose and sedulous adherence to high-toned principles, that you can create for her a reputation of which future generations of her graduates may justly be proud.

UNIVERSITY CONVOCATION.

14th March 1908.

Your Excellency, Your Honour, Ladies
and Gentlemen,

My first words on the present occasion must be expressive of my deep gratitude to His Excellency for the extremely kind and indulgent manner in which he has commended me and my work in the University; my sincerest thanks are no less due to the members of this distinguished assembly for the obvious marks of satisfaction with which they received that approbation. I deem it, indeed, a great privilege to be permitted to address this Convocation which has been held in commemoration of the Jubilee of the University. On an auspicious occasion of this description, one naturally feels tempted to review the progress of the University during the fifty years of its existence and to recount the benefits which have resulted to our people from its foundation. Such an elaborate survey, however, must be more fittingly reserved for the Memorial Volume which the University intends to publish, and I must restrict my theme on the present occasion to the barest outline of the

position we occupy at the present moment, indicating, on the one hand, the progress we have made in the past, and, on the other, the vastly extended range of work which we have to accomplish in the future.

When I had the honour to address the Convocation twelve months ago, it was my painful duty to refer to the heavy losses we had recently sustained in the ranks of our devoted workers. It is a matter for congratulation, that in this respect, we have been comparatively fortunate during the last year, although we have to deplore the loss of some distinguished friends and workers of the University. Maharaja Sir Jotindramohan Tagore, who occupied the foremost position in Indian Society and whose loss is mourned by all sections and classes of the community, was remarkable alike for his culture and wisdom. He was a true friend of education, and a sincere promoter of learning; the interest which he took in the work of the University as President of the Faculty of Arts and as a member of the Syndicate, is still held in grateful remembrance, while his benefaction will transmit his name to future generations of students of law. Babu Sreenath Das greatly distinguished himself as a student and teacher of Mathematics in pre-University days, while he was known to a later generation as a

brilliant member of the legal profession and as a representative of the Faculty of Law on the Syndicate. Babu Umeshohandra Datta was a quiet and unostentatious worker in the unremunerative paths of education, and his name will be cherished by future generations, for solid work modestly accomplished in the development of one of the foremost Colleges of this city, in the progress of the education of our females, and in the promotion of charitable and religious institutions. By the death of Doctor Moir, who represented the Faculty of Medicine on the Syndicate, we have been deprived of the services of a gentleman of the highest professional attainments and character, and the lamentable circumstances under which his career was cut short in the prime of life, inevitably call forth the deepest admiration for unflinching devotion to duty in the face of obvious and immense personal danger. By the retirement of Mr. Ratcliffe, the Senate has been deprived of the services of a member whose views on academic matters were put forward with courage and moderation, and smoothed many a debate when the new Regulations were framed. Last but not the least, by the retirement of Dr. William Booth, the Indian Educational Service has lost one of its most capable and distinguished members, a man remarkable for independence of

character and unflinching devotion to what he felt was right. His services to the cause of education in this country as the Principal of important Colleges, as an Inspector of Schools, as a Director of Public Instruction and as Registrar of this University can hardly be over-estimated. The enthusiasm which he kindled in his pupils, among whom I have the privilege to count myself as one, by his brilliant lectures and investigations in Mathematics, has never been surpassed in this country, and his name will be held in grateful recollection by more than one generation of Indian students.

Two events of paramount importance to the progress of our academic work have happened during the last twelve months, and deserve more than a passing notice. To one of these, the munificent gift of two and a half lacs of rupees by my Hon'ble friend the Maharaja Bahadur of Darbhanga, a felicitous reference has already been made by His Excellency the Chancellor. The other is a munificent gift of another two and a half lacs of rupees by the late Babu Guruprasanna Ghose, one of the most cultured scions of a well-known aristocratic family of this city. Forty years ago, the University was the fortunate recipient of five lacs of rupees, out of which two were contributed by an enlightened

prince of merchants, Mr. Premchand Roychand of Bombay, and three by an accomplished lawyer of this Province, Babu Prasanna Kumar Tagore. I cannot but deem it a fortunate circumstance, that on the present occasion, we have enlisted the sympathies of the wealthy aristocracy of these Provinces, and that we owe our benefactions to members of that body who have lived in the Temple of Fortune, and there unsatisfied, have gone higher, by arduous steps, to the Temple of Charity, where they have so fittingly bestowed their gifts, in the consciousness that great acquisitions involve great responsibilities. It is worthy of note that the bounty of each has been called forth for an object which is of incalculable importance to the advancement of Education in this country. The benefaction of the Maharaja of Darbhanga is to be devoted for the foundation and extension of the University Library; the benefaction of Babu Guruprasanna Ghose is to be applied to train Indian students in the Arts and Industries of Europe, America, and Japan. Whatever controversy there may be as to the future development of this University, there can be no possible doubt or dispute as to the sovereign importance of a Library and a Technological Institute. Whoever, therefore, gives us ample funds for the foundation of a

Library where the archives of the human race may be treasured and studied, whoever gives us funds to train our young men in laboratories, which not only open the arcana of Nature but directly promote the industries, must awaken our admiration and imperatively claim perpetual gratitude. I fervently hope that these recent examples of beneficence, so great and wise, so well calculated to advance the moral and intellectual welfare of our youths, will not be completely lost to the many enlightened representatives of wealth and culture in this great Province.

I shall now pass on for a moment to the work of the University during the last twelve months in the way of enforcement and practical realization of the new Regulations. As I had occasion to observe last year, the portions of the new Regulations which are of fundamental importance, are those for the appointment of University Professors, Readers, and Lecturers. They mark an epoch in the history of the University, which is no longer to be restricted to its scope of an examining body with power to grant Degrees, but is in future to undertake post-graduate teaching and ultimately form a centre for the cultivation and advancement of knowledge. It is a matter for congratulation that the University has found it practicable, with the limited means at its disposal, to make

a definite and substantial advance in this direction. We have been able to secure the co-operation of three distinguished scholars as University Readers, each of whom is unquestionably pre-eminent in his own special subject. The brilliant lectures of Dr. Thibaut on the Astronomies of the Ancient Oriental Nations and of Professor Schuster on the Progress of Modern Physics, have rightly evoked considerable enthusiasm amongst our advanced students and College lecturers, while the course of lectures on the Geology of India announced by Dr. Holland, is awaited with widespread interest. I am not altogether without hopes that our funds may permit us to arrange for other courses of lectures during the next year, upon subjects of vital interest and importance to Indian scholarship. During the last twelve months also, the Senate has arranged for a large number of University Lecturers for the benefit of post-graduate students, and it is worthy of note, that although we have not found it practicable to make adequate provision for all branches of study, literary and scientific, provision has been made for lectures which were urgently needed, including instruction in Pali language and literature by Mr. Kosambi, a Maharatta scholar of considerable distinction, and advanced instruction in the Vedas by Acharyya Satyabrata Samasrami, the foremost

Vedic scholar in these Provinces, who has devoted a life time to these special studies. By the munificence of the late Babu Sree Gopal Basu Mallik, we have been further enabled to appoint a brilliant graduate of this University, Panday Ramavatar Sarma, to lecture on the Vedanta Philosophy and to unravel to our students the intricacies of that fascinating subject. The University has also, during the past twelve months, instituted prizes in commemoration of our Jubilee for the promotion of literary and scientific research by our graduates, and we have further found it possible, with the help of money placed at our disposal by a Memorial Committee, presided over by an Ex-Vice-Chancellor of this University, the Hon'ble the Chief Justice of Bengal, to institute a research prize in Medicine which is to bear the name of the late lamented Maharaja Sir Lachmessur Singh of Darbhanga. Lastly, the Senate has sanctioned the institution of twelve post-graduate scholarships of the value of Rs. 32 a month, each tenable for two years, by distinguished Bachelors of Arts and Bachelors of Science who desire to proceed to the Degree of Master. To crown all this, we have the gracious announcement by His Excellency the Chancellor about the foundation of a University Professorship, which has been received by all with feelings of intense satisfaction, and which

will make the administration of His Excellency gratefully remembered for ever as the era of effective and substantial support by the State to the cause of the highest education of Indian youths. I trust I have said enough to show that this much may be legitimately claimed on behalf of my colleagues on the Senate that there has been no lack of zeal or devotion on the part of the members of this University, and that we have established a strong claim upon the munificence of my wealthy and educated countrymen for substantial help, so that we may

“Draw new furrows beneath the healthy morn
And plant the great hereafter in the now.”

Another work of vital importance upon which the University has been engaged during the last twelve months, is a preliminary survey of all our affiliated Colleges and recognised Schools. As I had occasion before to point out, the control of the University over the affiliated Colleges and recognised Schools, and the power of supervision created by the new Regulations, are likely to have far-reaching consequences. Henceforth it will be the first duty of the University to secure the efficiency of the Colleges, and to be assured that the recognised Schools are maintained as places, where sound education is imparted and strict discipline is enforced. We have

within our jurisdiction more than fifty Colleges and over six hundred Schools; the reports upon their condition, which will require careful consideration, make it amply manifest that the Institutions where our boys and youngmen receive their training, are, I regret to say, almost without exception, much below the standard of efficiency contemplated by the new Regulations. I have no desire to magnify our difficulties, but at the same time, I feel keenly that it would be a fatal mistake to ignore them and to take a too optimistic view of the situation. It is safe to say that the educational Institutions of the future, quite as much as those of the present, will be largely controlled, if not dominated, by three factors—teachers, instruments and books. In each of these vital elements, the deficiency of our Institutions is remarkable. They are, without exception, undermanned; of Libraries and Laboratories, there are only a few, if any, which can satisfactorily stand the scrutiny of the most reasonable test applied according to western ideals. The one possible solution of the situation plainly appears to me to be the expenditure of more money for educational purposes. I wish it to be understood that I make no exception in favour of any particular Institution, be it maintained by the State or aided from public funds, or

supported by private munificence. They all stand in need of urgent reform and expansion, and it is indisputable that if they are to be maintained in a state of efficiency, their scope must be restricted, and the authorities of each Institution must concentrate their attention and direct the energies of their teaching staff to selected branches of knowledge. But even if each Institution specializes, as I have suggested, considerable expenditure will be necessary to strengthen the staff, to remunerate them decently, if not adequately, to improve the Libraries, and to establish proper Laboratories. The warning cannot be too soon or too emphatically given, that strenuous effort and large outlay will be imperatively needed for many years to come, on the part of all interested in the welfare of our Colleges and Schools.

From this imperfect review of our position and future prospects, let us travel back in our imaginations, for a moment, half a century back to the time when the University was founded, and take stock of the progress we have made. I do not desire to dwell at any length on the rapidity and exuberance of the growth of the University, though it is indubitably a matter for sincere congratulation. It would hardly be profitable to recount how the University started with a dozen Colleges and

a few hundred students, and how, in less than a quarter of a century, the number of Institutions within its jurisdiction had increased six-fold and the students directly amenable to its influence, had to be counted by thousands. Nor is it necessary for me to remind you, how with the phenomenal progress of education throughout the whole of Northern India and under the pressing demand of local conditions, two other Universities have grown out of the parent body, like off-shoots from the banyan tree, and now exercise a salutary influence over education in the United Provinces and the Punjab, while our original Institution, territorially restricted, still exhibits unabated vigour and activity. I need also make only a passing reference to the circumstance, that the benefactions which the University owes to the munificence of private individuals, represent fourteen lacs of rupees, to which may be added our Reserve Fund of six lacs. I do not lay special stress upon these figures, for although they indicate to some extent the popularity of the University, and some degree of prosperity, the sums at our disposal are totally inadequate for our needs and would rightly be regarded as insignificant in Europe and America, where, what has taken us half a century to accumulate, would not improbably be contributed by a single beneficent founder like John Hopkins or Leland Stanford.

I pass by this aspect of the material progress of the University, and I pause for a moment to ask, what progress we have made in our conception of the true scope and functions of a University during half a century of its existence. Here, at any rate, it is some satisfaction to find that we have made definite progress in the right direction. The fundamental conception which lies at the root of the Act of Incorporation of 1857 was that the University was to be a purely examining body. Nearly half a century later, we have come to realise that the object of the University is something wider and nobler than the mere application of tests, however searching they may be, to determine the extent and accuracy of knowledge acquired in Institutions over which the University had no direct or adequate control. (The present conception of the function of the University is, that it is an Institution for the acquisition, conservation, refinement and distribution of knowledge.) I believe it is the opinion of most persons, competent to form an opinion upon educational matters, that this salutary change in the conception of the true function of this University, has been recognised not a moment too soon. The original limited conception of the University as an Institution which exists solely to conduct examinations and confer Degrees, necessarily produced the disastrous result that

teaching was subordinated to examinations. While it may be conceded that a system of examinations, properly and reasonably conducted, has undoubted advantages in every system of academic study, it would be idle to deny that there are grave abuses and distinct tendencies to abuse in the extraordinary development of the Examination System in modern times. One of the greatest evils is hasty cram at the last moment instead of the quiet and deliberate appropriation of knowledge from day to day. Another, and, perhaps, a still greater evil, is the desire to adapt the teaching to the examination, or to put it from the point of view of the student, an ingenious attempt to circumvent the examiner by a close study of his habits and proclivities. A third evil, equally disastrous, is an artificial determination of subjects of study, which are selected by the student, not entirely from the point of view of his special aptitude, but very often from considerations whether a particular subject pays well at the examination. These and other evils which, if not inherent in, are, at any rate, concomitant to all elaborate systems of examination, are naturally aggravated, where, as here, a University exists exclusively for purposes of Examination. I rejoice, therefore, that under our new constitution, post-graduate teaching is definitely

regarded as one of the duties of the University, and henceforth I trust the principle will never be overlooked that the teacher is unworthy of his vocation who keeps the coming Examination perpetually in sight, that examinations are subordinate to teaching, not that teaching exists for the sake of examinations. Another fundamental idea, to some extent inseparably associated with the position I have just indicated, is partially recognised for the first time, by the new Regulations, and when further developed, may have far-reaching consequences—I mean the recognition of the claims of research in every system of advanced education. I am not unmindful that there is an unwholesome dread of the very term ‘research’ among some people who profess to be interested in education, but I sincerely trust there is none such in this assembly. It is rather late in the beginning of the twentieth century to doubt or dispute the value and importance of research as a part of academic training and as a necessary qualification for admission to the highest Degrees of the University. Call it by what name you will, describe it, if you please, as investigation, or as advancement of knowledge in the language of Bacon, or as creative action in the phrase of Emerson, or as constructive scholarship in the words of Munsterberg, there

can be no possible controversy as to the importance of the conception. I do not deny that every aspirant for research, at the outset of his career, requires control, and the benefit of the counsel of a more learned and experienced person. But with adequate preliminary training and proper guidance, our advanced students are thoroughly qualified to enter upon the field of investigation, as a proof of which it is sufficient to mention, that this afternoon, for the first time, we have conferred the Degree of Doctor of Philosophy upon two of our distinguished graduates, Dr. Satischandra Vidyabhushan for contributions to the History of Indian Logic and Dr. Abdulla Soraworthy for contributions to Mahomedan Jurisprudence. Nor should I pass over in entire silence upon the much debated question of the relation of instruction to research. It is asserted by some with a degree of confidence, that Professors engaged in research must to some extent neglect the interests of the students committed to their care, and that if they are devoted to the interest of their students, they have no time for research. But while I do not deny that serious administrative duties are impediments to prolonged work in the Laboratory or the Library, it is undeniable that instruction is not administration, and it is quite possible to combine instruction with investi-

gation; as a proof, it is sufficient to refer to important investigations in the domain of Chemistry by my friend Dr. Prafullachandra Ray of the Presidency College, which have been utilised even for purposes of elementary instruction. The truth seems to me to be that while sterile intellects attribute their non-productiveness to over-work, a more acute diagnosis detects a lack of will-power. I fervently hope that the conception of research has come amongst us to stay, and will spread throughout the land from peak to peak like the signal fires described by the Greek Dramatists of old.

There are two other fundamental ideas, inseparably associated with the progress of the University, which deserve a brief reference on the present occasion. When this University was established half a century ago, it was founded upon a policy of religious neutrality, and ever since then, our Regulations have wisely embodied an emphatic declaration that no question shall be asked at any University Examination which would require an expression of religious belief on the part of the candidates, and no exception shall be admissible against any answer, on the ground that it expresses peculiarities of religious belief. The wisdom of this policy has never been seriously questioned, but the result has been

somewhat unexpected and has often been rightly lamented. A theory has gained ground for many years past that nothing need be taught in Schools and Colleges which is not directly required for purposes of University Examinations, and that consequently, it is no part of the duty of the Institutions in which our boys and youngmen are trained, to consider the question of their moral and religious instruction. It is however undeniable that, as His Excellency has so appropriately pointed out, no system of education which is purely intellectual and which leaves severely alone the moral and religious elements of life, can satisfy the national want or promote the growth of healthy manhood. If this University is to have a permanent hold upon the mind of our people, this aspect of the problem will have to be faced and solved. I do not profess to have discovered a remedy, but I firmly believe that if the authorities of our Colleges and Schools earnestly take the matter in hand, a practical solution will be attainable. I do not deny that we are still at the threshold of the residential system of education, which was, in times past, our own indigenous system and which now prevails in European Universities, and, it may be, many a long year will pass, before the University will be in a position through its Colleges to

exercise that domestic discipline over its students which is a valuable feature in the Universities of the West. But there is no reason why, meanwhile, moral and religious training should not be coincident with intellectual discipline. If this is fundamental to all real progress, as I firmly believe it to be, it is surely our duty to see that while our youths are forming their habits of body and mind, they are also forming their habits of moral and spiritual life, and that they are taught, not necessarily in the College, but simultaneously with their Collegiate lessons, to build on firm foundations their ethical conduct and their religious faith. I need hardly assert that as a pre-requisite to the success of any system which may be devised, it would be essential that every student, under the guidance of his guardian, should have absolute freedom to be trained in the religious faith of his fore-fathers; that, subject to this restriction, the idea is workable is illustrated by what has been accomplished in the Central Hindu College of Benares, which is rightly regarded as one of the soundest and most remarkable Institutions founded in recent years. I have no faith in the efficacy of abstract religious maxims solemnly inculcated by grave teachers upon youthful minds which receive no impression from the process. But,

I believe, it would be far more profitable to illustrate the fundamental principles of every system of morals and religion by examples of truth, purity, charity, humility, self-sacrifice, gratitude, reverence for the teacher, devotion to duty, womanly chastity, filial piety, loyalty to the King, and of other virtues, appropriately selected from the great national books of Hindus and Mahomedans. These cameos of character, these ideals of our past, portrayed with surpassing loveliness in the immortal writings of our poets and sages, would necessarily captivate the imagination and strengthen the moral fibre of our youngmen, who would thus acquire genuine respect for those principles of life and conduct which have guided in the past countless generations of noble men and women in this historic continent.

The other fundamental doctrine which lies at the root of our University system of education and to which I desire to make a brief reference, is the principle that European knowledge should be brought home to our students through the medium of English—that western light should reach us through western gates and not through lattice work in eastern windows. The validity of this principle, which has been firmly settled for three quarters of a century, has latterly been seriously questioned

by people of culture and position whose opinion claims consideration. I need not, on the present occasion, after what His Excellency has said, review the history of the educational problem of this country during the early part of the last century, nor have I the time at my disposal to recall to your minds how before the first Educational Despatch of 1813, the question of the education of our people was treated with indifference by our Rulers, although the Calcutta Madrassa had been established by Warren Hastings for the benefit of Arabic studies and the Sanskrit College at Benares had been founded by Jonathan Duncan for the promotion of Sanskrit learning. Nor need I dwell at length upon the strange circumstance, which has always seemed to me to be an irony of fate, that while from 1813 onwards, the authorities were bent upon the improvement of Indian education by the encouragement of persons learned in Sanskrit and Arabic, distinguished members of the Indian Aristocracy, under the inspiration of David Hare and Ram Mohan Ray, founded the Hindu College on the principle, that whoever desires to obtain a liberal education, must begin by a mastery of the English language as a key to the Science and Literature of Europe. It is enough for me to remind you that nearly twenty years after the foundation of the Hindu College by my

countrymen, the struggle between what has been not very felicitously described as Anglicism and Orientalism, terminated in favour of the former, and the great Minute of Lord Macaulay and the famous Resolution of Lord William Bentinck, set the seal of authoritative approval upon the principle, unsuccessfully advocated by Raja Ram Mohan Ray and Dr. Alexander Duff, that a thorough first-hand acquaintance with English language and literature, will always be essential to those amongst my countrymen who aspire to a high order of education. This principle, thus broadly formulated, was definitely adopted as the foundation of the great Educational Despatch of 1854, in which, as Lord Dalhousie once remarked, Sir Charles Wood, with magnificent audacity, outlined a scheme of education for all India, far wider and more comprehensive than any Local or the Supreme Government would ever have ventured to suggest. That Despatch is still rightly treated as the Great Charter of High Education in India, and I confess, I cannot perceive any solid foundation for the assertion that high education, as outlined in that Despatch, has been a perilous blunder. I emphatically assert, that it has been neither a peril nor a blunder. I can never forget the circumstances under which the Indian Universities were established. What friend of education

in this country can afford to forget that although the Court of Directors, with genuine statesman-like foresight, recognised that England's prime function in India was to superintend the tranquil elevation of the whole moral and intellectual standard, and directed at a time of profound peace, the establishment of the Universities, the Acts of the Legislature, by which the Universities were called into existence, were not passed till the year of the great Mutiny, when the flames of rebellion were still unquenched and the times might have been deemed scarcely suited to educational advancement? Who can deny that the Universities, founded upon just and liberal principles, under such circumstances and amid such surroundings, will for ever remain as striking monuments of the coolness, the persistent energy and the generous impulses of the British race? Can it then be suggested with any semblance of reason that the Universities, so generously established, have failed in their object of the dissemination of European education amongst our people? I have no hesitation that the answer should be an emphatic negative. If the mission of the British nation is not merely the maintenance of order but also the advancement of civilization, an organised system of high education is essential, because progress of civilization without promotion of education

is a contradiction in terms. As was felicitously observed by one of my distinguished predecessors, who resolutely declined to be frightened by any talk about the dangers of education, it is ignorance in every form and in every class, which is a source of danger to the body politic, and the strength and stability of a government must depend, not solely upon force, but upon reason, upon persuasion and upon the intelligent appreciation by its subjects of the motives and objects of their Rulers. It is undeniable, that the spread of higher education amongst our people has been on the whole beneficent in the direction indicated by Sir Courtenay Ilbert; but higher European education promises to the people of this country a great deal more, if it is wisely regulated and is supplemented by moral and religious culture, so as to foster the growth of whatever is noble in Indian character. Nearly forty years ago, Baron Napier, Governor of Madras and Chancellor of the University of that Province, in a memorable address, remarkable for prophetic insight and true statesmanship, analysed and delineated with the hand of a master, the aims and ends to which higher European education will ultimately lead the people of this country. His Excellency specified four objects which the people of this country seemed eventually destined to attain

by sedulously following the paths of education ; *first*, a new basis of national unity, *second*, a rational knowledge of the Institutions of the East, *third*, self-government or the Government of India by the Indians in a modified form, and *fourth*, participation in the general intellectual movement of the world, now and hereafter. Countless years, the end of which no human vision can reach nor sagacity penetrate, may roll on before any or all of these objects are realised. But if ever the time comes, when in the language of Lord Napier, " the Universities of India prove to have done a larger duty than they have exercised elsewhere, and are found to have been not only the nursing mothers of learning and virtue and intellectual delights but also the nursing mother of a new Commonwealth," the foundation of the Universities in the East will prove to have been the brightest glory of the British race and the supremest triumph of statesmanship. It is meet, therefore, that we should commemorate the Jubilee of this University, which has brought home to our people the gladsome light of Western education in the past and which is fraught with magnificent possibilities in the future, and it befits the occasion that we should inscribe on the roll of our graduates the name of the distinguished scientist from Europe who has honoured us by his presence, the names of eminent

representatives of the other Indian Universities which are inseparably associated with us by a community of ideals and aspirations; and the names as well of our own faithful workers who have spread the fair fame of the University by their devotion to the cause of advancement of knowledge and promotion of true learning.

Graduates of the University of Calcutta, who have this day been invested with academic insignia, I call upon you to rise to the true dignity of the position which you have just attained and to recognise and fulfil the responsibility which it imposes. Do not imagine that the charge which I have addressed to every one of you on admission to your respective Degree, that you should in your life and conversation show yourself worthy of the same is a meaningless platitude or an idle formula. Treat it as the parting message of the University to each and every one of you who have been trained, and I trust, adequately equipped for the battle of life, under her beneficent guidance. If I were called upon to develop this charge, I would exhort you in the words of one of the greatest teachers of mankind: "Whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, if there be any virtue and if there

be any praise, think on these things." In whatever sphere of life your lot may be cast, prove yourself to be the true children of your *Alma Mater*. Educated by the liberality of the State or by private munificence, strive strenuously to make adequate return; with anxious solicitude, promote the education of your countrymen, and be, each of you, a bright centre of moral and intellectual activity like the scholars of Mediæval Europe, who laden with Greek and Roman learning, brought many of the gems of ancient lore within the reach of those who never had the benefits of classical education and knew none but the vulgar tongue. Make your mission the diffusion of knowledge and virtue and the repression of ignorance and evil. Above all, endeavour to attain stability of character, and cultivate that principle of honour, which once tainted or lost can never be regained. Forget not, that unless you are honourable men, all your talent, learning and industry will be in vain, and your intellectual powers will be a snare to yourselves and a delusion to others. Cultivate that humility of spirit which the learned and unlearned alike instinctively feel, is the true stamp of culture and wisdom. Cultivate also that spirit of obedience to lawful authority, which is the necessary concomitant of true academic discipline. Make yourselves **Captains**

of the Peace of the Realm, and prove yourselves loyal and valuable citizens, worthy of the confidence alike of your Rulers and of your countrymen. Show to the world, that education and loyalty are not only consistent, but that the more advanced the education, the more genuine the culture, the deeper the attachment to your Rulers. Prove to the world, that genuine allegiance is felt by you for the nation, which by a liberal and enlightened educational policy, have brought your minds into intimate contact with the spirit of the West, and show that such allegiance may be rendered without the least relinquishment of your own nationality and without loss of genuine pride in the magnificent legacy of your ancient civilization.

Students of this University, allow not the pursuit of your studies to be disturbed by extra-academic elements. Forget not, that the normal task of the student, so long as he is a student, is not to make politics, nor to be conspicuous in political life. Take it as my deepest conviction, that practical politics is the business of men, not of boys. You have not that prudent firmness, that ripe experience, that soundness of judgment in human affairs, which is essential in politics, and will be attained by you only in the battle of life, in the professions and in responsible positions. Train yourselves, if you please, in Political Economy, Political Philosophy, Jurisprudence

and Constitutional Law; acquire an intelligent comprehension of the great lessons of History; but delude not yourselves in your youthful enthusiasm that the complex machinery by which a State is governed may be usefully criticised and discussed without adequate training and laborious preparation. Remember further that if you affiliate yourselves with a party, you deprive yourselves of that academic freedom which is a prerequisite to self-education and culture. Submit not, I implore you, to intellectual slavery, and abandon not your most priceless possession, to test, to doubt, to see everything with your own eyes. Take this as a solemn warning that you cannot, with impunity and without serious risk to your mental health, allow your academic pursuits to be rudely disturbed by the shocks of political life. Devote yourselves, therefore, to the quiet and steady acquisition of physical, intellectual and moral habits, and take to your hearts the motto,

“Self-reverence, self-knowledge, self-control,
These three alone lead life to sovereign power.”
Follow the path of virtue, which knows no distinction of country or colour; be remarkable for your integrity as for your learning, and let the world see that there are amongst you

“Souls tempered with fire,
Fervent, heroic and good—
Helpers and Friends of mankind.”

UNIVERSITY CONVOCATION.

13th March 1909.

Your Excellency, Your Honour, Ladies and Gentlemen,

The twelve months which have elapsed since we last met in this hall to celebrate the Jubilee of the foundation of the University, have formed a period of strenuous work in our academic life. But before I pass over in rapid review the work which has been accomplished, and take stock of the numerous problems which still await solution, duty demands that I should pay a tribute of respect and gratitude to some of our most honoured colleagues whose services have been lost to the University by death or by retirement from this country.

By the death of the Reverend Father Eugene Lafont, we have lost a devoted student of science, who during a period of forty-five years, built up one of the finest laboratories in this city, established the reputation of the St. Xavier's College as one of the foremost institutions of the University, secured for the experimental sciences the position which they deservedly occupy in the University curriculum, and materially aided one of the most brilliant graduates of this University in

the establishment and maintenance of the first Indian Institute of Science. His services to the cause of the advancement of scientific education in this country, and his sympathy with the legitimate aspirations of my educated countrymen, secured for him their affectionate respect, and the extent of his popularity might easily be judged by the splendid ovation which was accorded to him when he was admitted to the Honorary Degree of Doctor of Science. By the death of Moulvi Khoda Buksh Khan Bahadur, we have been deprived of the services of a true lover of learning, who devoted the savings of a lifetime for the promotion of oriental research and in the foundation of a library rich with literary treasures of inestimable value to the student of Arabic language and literature and of the Mahomedan period of Indian History.

By the retirement of Sir Andrew Fraser, we have lost our first Rector, who, himself a distinguished University man, appreciated the difficulties of University work, and always took a genuine interest in its welfare. By retirement, we have also lost Sir Robert Rampini, at one time President of the Faculty of Law and Member of the Syndicate, and always a zealous worker whose services whenever needed were ungrudgingly placed at our disposal. By the retirement of Mr. Justice Geidt, we have

lost the services of one of the soundest of our advisers, whose views, put forward with moderation and impartiality, secured the attention and respect they deserved. Lastly, by the recent retirement of Sir Francis Maclean, we have lost from our midst one of the truest friends of our people, who, during the term of his office as Vice-Chancellor of this University, devoted himself to the discharge of his duties with zeal and dignity, and who, during the entire period of his stay in this country, took the keenest interest in the cause of the promotion of the education of our females.

During the last twelve months, the University has steadily endeavoured to promote post-graduate studies and research, and it is a source of satisfaction that we have found it possible to make substantial advance in this direction. The Senate has, after careful deliberation, revised the Regulations for the award of the Premchand Roychand Studentships. They were originally regarded as rewards for merit tested by examination; latterly, they were awarded partially in recognition of merit evidenced by knowledge previously acquired and partly as reward for proved capacity for research. In future, they are to be open to competition among all graduates who have taken the highest Degree in any Faculty, and are to be awarded solely for the

promotion of original research and investigation. I think it is distinctly a matter for congratulation that we should have found it possible to abolish one of our severest tests in which mere acquisition of knowledge played so important a part, and have replaced it by a system in which a capacity to extend the bounds of knowledge will have the recognition it undoubtedly deserves. During the last twelve months also, we have found ourselves in a position to arrange for two important courses of post-graduate lectures. In the first place, we had a series of brilliant lectures on an important department of Mathematical Physics by Dr. Gilbert Walker, one of the recognised authorities on that subject. These lectures were largely attended by our advanced students and lecturers in Colleges from the remotest parts of the Province, and I have not the faintest doubt that they will serve to stimulate study and research in one of the most useful and difficult branches of modern physics. In the second place, we have had a long series of luminous lectures from one of our own graduates, Babu Dineshchandra Sen, on the fascinating subject of the history of the Bengali language and literature. These lectures take a comprehensive view of the development of our vernacular, and their publication will unquestionably facilitate the historical investigation of the origin of the

vernacular literature of this country, the study of which is avowedly one of the foremost objects of the new Regulations to promote. It is a matter of the deepest regret, however, that another effort made by the Senate, in the same direction, has failed through circumstances which no human foresight could control. We all lament the death of the late Professor Pischel at Madras on his way to Calcutta, as by this tragic event the world of Oriental scholarship has lost one of its devoted votaries, and the members of this University have lost the unique opportunity of inspiration and stimulus derivable from personal contact with one of the greatest scholars of Germany. It is in some degree fortunate, however, that he has left to the University a fairly complete record of the course of lectures he had intended to deliver on the Philology of the Prakrit languages. The material thus placed at our disposal is of considerable importance and a committee of experts has already been appointed to secure the speedy publication of the work.

During the last year, the University has been the recipient of several endowments, the most considerable of which is a sum of Rs. 40,000 left by the late Babu Hem Chandra Gossain for the promotion of the knowledge of Science and Sanskrit amongst our advanced students.

Another endowment deserves special mention, as it will serve to keep alive the memory of one of our most honoured colleagues, the late Pratap Chandra Mazumdar, who had devoted a lifetime to maintain a healthy atmosphere among our students. During the last twelve months also, we have advanced with the scheme for the promotion of the study of Indian Economics, and we have been fortunate to secure one of my distinguished countrymen, who had a brilliant career in the University of the Punjab, as also in the University of Cambridge, as the first occupant of the chair founded at the instance of His Excellency and now, with his gracious permission, most fittingly associated with his name.

One of the most important works in which the University has been engaged during the last twelve months is the revision of the affiliation of Colleges. It is needless to say that it has been no easy task to restrict the scope of work of institutions, many of which have been in closest touch with the University for half a century. In the performance of this delicate and difficult work, the sole object of the University has been to secure the efficiency of the Colleges for the ultimate benefit of the students who receive instruction there. I can confidently claim this much for the decisions of the University that our treatment of the various institutions

has been absolutely impartial, and I think this is sufficiently indicated by the readiness and loyalty with which our views have been accepted by persons vitally affected thereby. It is not a matter for surprise, that in solitary instances the position taken up by the University has been misunderstood, for institutions with limited means at their disposal are reluctant or unable to appreciate the vital principle that the quality of their work must improve with the concentration of the sphere of their activity. It is fortunate, however, that with the help of the special grant generously placed at the disposal of the Colleges by the different Provincial Governments, the position of the institutions which have availed themselves of aid from the State, has been materially strengthened, and their efficiency distinctly improved. But I repeat that the warning can never be too emphatically given that strenuous and sustained effort is necessary to secure the permanence of these Colleges, and I venture to express the hope that my wealthy countrymen will readily recognize their responsibility as leaders of the community, and extend their support for the maintenance of these struggling institutions.

In the course of our examination of the conditions of the Colleges now affiliated to the University, two problems of fundamental importance and of considerable difficulty have

emerged to the front, and claimed special consideration. The first and foremost of these is the question of the governing bodies of all institutions, whether maintained by the State or by private munificence. It is beyond the domain of controversy that if the Colleges which constitute the University are to be genuine educational institutions of a permanent character, they must be corporations placed under the management of governing bodies which exercise a real financial and educational control for the sole benefit of the institutions. We must once for all destroy the favourite fetish that the ultimate control of education cannot safely be placed in the hands of the people who have made education the profession of their life. Select your men with the utmost care and discretion, but once you have taken this precaution, the government of the Colleges must be vested in people who have made a special study of educational problems and who are intimately acquainted with the details of educational work. In the case of one class of Colleges, we have to guard against possible interference with the internal administration of the College by people who are unable to realize the paramount importance, in a College, of interests strictly educational; in the case of another class, we have to guard against the dangers invariably associated with the

dominance of a single individual in institutions of a proprietary character. It is indisputable that the Indian Universities Act, as also the University Regulations, regard it as the essential and fundamental condition for the existence of all Colleges that they should be placed under governing bodies on which the teaching staff is represented. The University has, in firm adherence to this principle, striven hard to carry it into effect; but although our endeavours have met with a loyal response in the case of many institutions, an effort has been made in some quarters at what must be regarded as a reluctant if not a nominal compliance with our requirements. It may be trusted, however, that when the paramount importance and obvious advantages of genuine governing bodies are fully realized, the authorities of no affiliated institution will be found unwilling to render full and ungrudging compliance with the spirit of the Regulations on the subject.

The second problem which has arrested the attention of all persons interested in the progress of higher education, arises in connection with the inadequate arrangement made for the Collegiate education of Mahomedan students. The new Regulations for the residence of students, which are of a stringent and somewhat inelastic character, have pressed rather hard upon this particular section of students.

It is admitted that separate arrangements have to be made for their residence in accordance with the Regulations, as the accommodation in the Elliott Hostel is neither sufficient to satisfy the demands of even the limited class of students concerned, nor capable of easy adaptation to the new conditions imposed by the University Regulations. It is a matter of some satisfaction that the question has been speedily taken up by the leaders of the Mahomedan community, and I need only say that the arrangements must be vigorously pushed forward so as to avoid permanent hardship to a very deserving section of the student community. But there is another question of even graver importance which cannot be allowed to be overlooked, I mean the question of the entirely inadequate provision made for the higher training of our University students in Arabic and Persian. It seems to me to be absolutely indefensible on principle that after the lapse of half a century from the foundation of this University, there should not be a single institution affiliated for the promotion of Persian and Arabic studies. I do not suggest for a moment that Mahomedan students, because they are Mahomedans, should be isolated and restricted within the walls of a particular College; in my opinion, it would be lamentable if students of any particular

class or community were deprived of the inestimable advantages of a free and healthy association on terms of equality with other students engaged in similar intellectual pursuits. But I do maintain that Arabic and Persian studies imperatively demand and unquestionably deserve a special institution for their cultivation and encouragement, and I trust that all persons interested in the promotion of these studies will join in an earnest endeavour for the establishment of a College where instruction in the highest departments of Arabic and Persian learning may be imparted in the light of the researches of Western scholars in these branches of knowledge.

During the last twelve months, the University has been engaged in the performance of another difficult task, namely, a systematic examination of the condition of all schools which enjoy the privilege of presenting candidates at the Matriculation Examination. It is obviously a matter of the utmost importance to the University that these institutions should be maintained on a high level of efficiency, for the capacity of the students in our Colleges to profit by a course of University education must depend to a large extent upon the thoroughness of the training they have received in the earlier years of their educational career,

For the first time in the history of University education in these Provinces, all schools qualified to present candidates for the Matriculation Examination have been inspected and an accurate survey obtained of their present condition in the fullest detail. These reports have been minutely examined by the Syndicate, and the facts as disclosed therein have, I confess, proved to be of a somewhat startling and disquieting character. While there are some schools of a thoroughly satisfactory type, a large proportion of the institutions in which our boys receive their preliminary training stands in urgent need of considerable improvement. In many instances, they lack a sufficient number of efficient teachers, and the frequency of changes in the staff, due to inadequate salaries, renders a continuity of good work impossible. In an appreciable proportion of schools also, the accommodation provided is so inadequate or unsuitable that there is a real element of risk from the point of view of the health of the students. I make no reference to the general want even of moderate libraries, of hostels for students who do not reside with their guardians, and of adequate provision for physical exercise, as the financial resources of the majority of the schools make it impossible for them to undertake the immediate removal of these defects. The Syndicate have considered

every individual case on the merits upon its own special circumstances, and have formulated what must be regarded as the bare minimum of improvement needed to make the institution a moderately efficient place of education. The action of the University, if I may judge from what I have heard, has been misunderstood in some places, and it has been assumed too readily that the University is intent upon the destruction of these schools. The standard we have prescribed is not only not ambitious, but may strictly be regarded as very modest, and we are prepared to grant every possible opportunity for improvement wherever a genuine and serious effort in that direction is manifested. I venture to express the hope that no institution which has any element of vitality will be driven to close its doors. We realize fully that in our endeavour to raise the status of the schools, we must rely upon the earnest co-operation of all persons interested in the promotion of education, and it is only by the generous assistance of the wealthy and enlightened people at all places where schools have been founded that we can hope gradually to elevate them to the proper standard of efficiency. We realize at the same time that a liberal scale of substantial grants-in-aid from the State is essential to supplement private munificence in this matter, and every

friend of education in the country will anxiously await the result of the scheme for the promotion of secondary education which, it is understood, is now under consideration by the Government.

There is one important matter in connection with this systematic survey of the schools which deserves special mention. In the course of this enquiry, the University found itself confronted with the vital question of discipline in our schools. It was painfully evident, though fortunately in a comparatively small number of instances, that discipline amongst boys had in some places either become lax or been practically destroyed. In every instance in which there were materials before the Syndicate to justify the inference of laxity of discipline, they have without hesitation taken action, but that action has been of a most considerate character. The Syndicate decided not to punish schools for past misconduct, but rather to give the offending institutions a fair chance for improvement. They insisted in such cases upon a reconstitution of the governing body and satisfactory guarantee by the members and the staff that they would in future use their best endeavours to maintain discipline and to discourage the boys under their charge from associating themselves in any way with political agitation or

demonstration of any kind. It is a matter for congratulation that good sense has prevailed in most instances; except in some isolated cases, schools have complied cheerfully with the requirements of the University, and subsequent enquiry has shown that the assurances given for the maintenance of discipline have been generally faithfully carried out. In the very few instances, in which the authorities of schools declined to give the assurance that discipline would be strictly maintained, the University has been driven to withdraw the privileges of recognition from the institutions concerned. I feel confident that no defence is needed for the action of the University which will meet with the approval of all persons genuinely interested in the education of our boys. The time has long gone by when people could seriously attempt to justify the active participation of school boys and youthful College students in political agitation and demonstration, and not many weeks ago, the association of students with political movements was condemned by one of the foremost leaders of political thought in this country in the plainest possible language, as injurious to the students themselves and to the cause they are supposed to advance. The lamentable events of the last twelve months have demonstrated the dangers of such a course, and I

maintain without hesitation that the most strenuous effort must be unfalteringly made by all persons truly interested in the future welfare of the rising generation, to protect our youths from the hands of irresponsible people who recklessly seek to seduce our students from the paths of academic life and to plant in their immature minds the poisonous seeds of hatred against constituted Government. Let us recognise that we stand at the parting of the ways, and that we must dissociate ourselves completely from misguided people who are not only reluctant to acknowledge the errors of the past, but who proclaim an obstinate adherence to their mischievous career.

There is only one other aspect of our academic work upon which I must dwell for a moment, I mean, the extension of the sphere of activity of existing institutions and the establishment of new institutions for the promotion of different branches of knowledge. So far as the first class of cases is concerned, there has been during the last twelve months a vigorous and sustained demand by existing institutions for affiliation in Science. It is a matter for rejoicing that the advantages of scientific culture are so widely appreciated and that our students have exhibited such a marked preference for scientific studies. I fervently hope that their new ardour in the pursuit

of scientific knowledge will survive the shock of the searching practical tests by which their proficiency will be ascertained, and that in the course of a few years we shall have no lack of men possessed of a sound knowledge of the physical and natural sciences and qualified for employment as teachers of science or as actual workers in industrial activities. Of the second class of cases which relate to the foundation of new institutions, we have had notable examples during the last academic year. Two Colleges have been founded for the training of teachers; one of these, which will prepare candidates for the new Degree of Bachelor of Teaching will be maintained by the Government and will fittingly recall to memory the illustrious name of David Hare who is rightly regarded as the Father of English education in these Provinces.) The other institution which will prepare candidates for the newly instituted Diploma of Licentiate in Teaching will be maintained by the liberality of the London Missionary Society, which has to its credit a striking record of valuable educational work spread over three quarters of a century. The importance of the foundation of these institutions can hardly be over-estimated, and I sincerely trust that their practical utility will be widely appreciated by members of the teaching profession. The dignity of the vocation

of the teacher has not always been steadily kept in view, and there has sometimes been a tendency to forget the truism that it is in reality one of the most important of all offices to which, in the interests of the community, the most gifted minds should be attracted. This occasional disregard of the true position of a teacher can be traced, it must be conceded, to the circumstance that we have too many teachers who are neither trained and qualified for their work, nor intend to make it the avocation of their life, as the profession is laborious and the prizes few. It may reasonably be hoped that the institution of the new Degree and the establishment of these Colleges will help us to secure the services of men adequately trained to fulfil their high calling and thus to add dignity to their noble profession

Lastly, while on this subject of the foundation of new institutions, I cannot pass over in entire silence the unanimous resolution of the Senate to establish a University Law College, to serve as a model institution for the promotion of legal education. This decision is merely in fulfilment of the duty imposed on the University by that great charter of Indian education, the memorable Despatch of 1854, and is entirely justified by the powers conferred on the University by the Indian Universities Act to make provision for the instruction of

students. This action on the part of the University was rendered essentially necessary by reason of the lamentable deficiency in the provision for scientific legal education, which presents a strange contrast to the more or less adequate provision for the instruction of students in the other professional Faculties, as also in the Faculties of Arts and Science. The time may not be far distant when there may be University Colleges for the promotion of other branches of learning than Law; but I trust, at any rate, that when the University Law College, as also other *bona fide* centres of legal education are at work, and make their beneficent influence felt, the end of what must be regarded as a serious blemish in our educational system will fairly be in sight. Yet, we have been so thoroughly accustomed to cheap and agreeable substitutes for the genuine article, that the demand for improved methods in legal education, has not unnaturally been received with feelings akin to resentment in some quarters, mainly outside the University. I confess I cannot treat with seriousness the observation, triumphantly made, that able and distinguished lawyers have grown up under the existing system,—self-taught men who have succeeded, not because of the prevailing system but in spite of it, by reason of exceptional merit and persistent devotion to their work. Nor

can I treat with greater seriousness the question, I presume, sarcastically put, whether the University Law College or institutions reformed on its model, will undertake to teach success in professional life—often due to that combination of tact and will which comes from Nature and not from instruction. Mental attitude like this is, from the academic standpoint, not merely wrong, but I venture to think, ignobly wrong. To me, such a frame of mind clearly indicates a complete failure to grasp the root of the matter that, to use the language of one of the most brilliant jurists of this generation, law is neither a trade nor a solemn jugglery but a living science. People who persistently question the necessity of scientific legal education, overlook the vital point that the most valuable implication of an academic degree is not so much the quantum of knowledge its possessor has acquired, as the thoroughness of the training he has received and the character of the discipline to which he has submitted. Is it right from the academic point of view that young men, at the most impressionable period of their lives, should be encouraged to engage nominally in the study of law, without the remotest intention seriously to grapple with its difficulties? Are we to teach them the new gospel that learning is out of date, that the lawyer need be neither a scholar nor

a thinker, but only a smart man with no other equipment than the latest issue of the Reports and the most recent edition of the Digest and the Statutes? Is the law so much easier and simpler than other departments of professional learning, or is the student of law so much less loaded with responsible duty, that we should content ourselves with a mockery of a training? I confess I cannot imagine a more humiliating position. As a condition precedent to the grant of a Degree in Law, it is our duty to satisfy ourselves that the recipient has really submitted to a thorough training in the principles of law,—not merely that his mind has been stuffed with a throng of glittering generalities, but that he has exactly and intimately grasped the general principles illuminated by concrete instances. To achieve this end, you require a band of not only devoted teachers, but earnest students. I feel confident that the higher standard of preparation and a more thorough course of study will not have a deterrent effect upon any young man who is fit to succeed; it may possibly shut out the lazy and the unprepared, but the earnest student, though at first he may be restless and doubtful, when firmly taken in hand and steadily held to his work, will, if there is the making of a man in him, rapidly grow joyous in the study of his choice. With a band of such students, bright, eager and

questioning, capable of demanding and appreciating the best of his work, the teacher himself will be stimulated, and the enthusiasm of the lecture room will make the students partners in their teachers' work. If this can be realized, as I trust it may, the higher standard of preparation will be in the best interest of the student and teacher alike. The increased effort on the part of the former will call forth the best energies of the latter. The student trained under these conditions will be a stronger and better man, more worthy of the reputation of the University and less likely in the scramble after a livelihood to debase the noblest of professions into the meanest of avocations. Thus and thus alone shall we send out to the world in abundance young men who will pour in the fresh blood of their hopes and aspirations into their lifework, maintain for themselves the highest standard of professional excellence, and thus constitute among the rising generation, a body of not merely intelligent but strong and scholarly lawyers, entitled by their mastery of the rational principles of all law and by their vital grasp of the essentials of their own, to occupy unquestioned the foremost places among the leaders of the community.

UNIVERSITY CONVOCATION.

12th March, 1910.

Your Excellency, Your Honour, Ladies and Gentlemen,

Another year has rolled away since we last met in Convocation in this Hall, and it is again my duty to take stock of the advance we have made in the path of progress, and of the substantial work of reform which still remains to be accomplished. Any review of this description, however, brief though it may be, must be deemed inadequate unless prefaced by a tribute of respect and gratitude to the memory of those of our fellow-workers whose services have been lost to us by reason of their death or of their retirement from this country.

The foremost amongst the members of the Senate who have been removed by the hand of death is the veteran educationist, Mr. Nagendra Nath Ghosh. A man of great talent and erudition, and of many-sided activities, he gave us for nearly a quarter of a century the benefit of his learning and experience. His services, as the head of the oldest and the foremost amongst the private institutions of this city, founded by the most illustrious

Indian educationist of the nineteenth century, will long be remembered with gratitude. His persistent endeavour to maintain discipline amongst the young men committed to his charge, and to save them from the seductive paths of political agitation, were appreciated by all true friends of Indian students. Nor are we likely to forget his services in connection with the committee appointed by the Government of India to frame the new Regulations of the University, when his breadth of view, soundness of judgment, and power of felicitous expression proved most helpful to his colleagues in the performance of a difficult task. By the death of Dr. Debendra Nath Roy, the Faculty of Medicine has lost its senior member who, for many years, ungrudgingly placed at the disposal of the University his long and varied experience as teacher and examiner, and on more than one occasion, represented the Faculty on the Syndicate and added to its strength and dignity. By the death of Dr. Hem Chandra Sen, who was cut off in the prime of life, we have lost a distinguished graduate, whose career gave promise of valuable work in the field of indigenous drugs. Dr. Theodore Bloch passed away unexpectedly while engaged in important researches in the fruitful field of Indian History and Antiquities. He was a brilliant scholar of singularly varied

attainments, and by his death, we have been deprived of his invaluable aid, as a University Reader and as editor of the lectures of the late Professor Pischel on the Philology of the Prâkrit languages. In both these directions, his unfinished work affords proof of the irretrievable loss which the cause of higher scholarship in this country has sustained by reason of his premature death.

The retirement of Sir Gerald Bomford has deprived the Faculty of Medicine of a brilliant member, who had in years past rendered conspicuous service to the University, and whose sustained and successful efforts for the development of the Medical College and the elevation of the standard of medical instruction and examination, will long be cherished in grateful remembrance. The Faculty of Medicine has further been weakened by the recent retirement of Col. Macrae, in whom we have lost a valued adviser, noted for his ripe experience and soundness of judgment. Last, but not the least, the retirement of Sir Thomas Holland, Dean of the Faculty of Science, has removed from our rolls the name of a brilliant and gifted worker in the domain of scientific research in this country, who presented a singular combination of profound knowledge and practical sagacity, which he placed unreservedly at the service of the State.

During the last twelve months, the University has steadily kept in view the progress of higher studies for the benefit of its advanced students. We were fortunate enough to secure the services of Dr. Cullis as University Reader in Mathematics. His lectures on an abstruse branch of analysis were attended not only by students engaged in post-graduate research work, but also by mathematical lecturers from different parts of the country. The subject, of which Dr. Cullis gave a luminous exposition, admits of extensive application in various departments of Mathematics; and his lectures, when published, will be found to mark a notable advance in an important branch of mathematical studies. The Senate had also, during the last year, arranged for the delivery of a course of lectures on Early Indian History by Dr. Theodore Bloch. Our object was frustrated by his unexpected death, but the materials, which Dr. Bloch had collected and partially arranged for his lectures, appear to be of considerable value, and may possibly be rescued and published. During the last twelve months also, the efforts of several of our distinguished graduates, engaged in original research, have borne fruit, and produced creditable results. Principal Brajendra Nath Seal has given us a valuable contribution on a fascinating, if somewhat controversial,

subject, the scientific theories addressed hard, Hindus. Professor Hiralal Halder is the inferior with profit in the field of Philosophy. Early Professor Syamadas Mookerjee has success also carried on investigations of much originality on the properties of curves. It is worthy of note, that all the successful candidates for the Degree of Doctor of Philosophy have previously attained a recognized position and considerable reputation as Professors in our affiliated Colleges; and it is a matter for sincere congratulation, that the establishment of a new Degree and of prizes for the promotion of research, should have drawn so many teachers of experience and distinction to the difficult, though attractive, field of original investigation. It is abundantly clear that there is no lack of well-qualified workers, and that strenuous effort should be made to train research students and to co-ordinate research, which should no longer be left to chance and to the efforts of self-taught and un-aided pioneers. During the last twelve months also, the first Professor of Economics, about whose appointment to the Chair founded at the instance of His Excellency, I referred on the last occasion, has entered upon the discharge of his duties, and it is a source of satisfaction that our senior students have taken enthusiastically to the serious study of a subject, the importance of

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which to the country, from a practical point of view, can hardly be over-estimated. It is not too much to hope, that the efforts of the University in this direction, supplemented by those of the Government of Bengal as also of the Government of Eastern Bengal, to promote the study of this subject from a scientific as well as practical point of view, may, at no distant date, lead to the formation of a rational and genuine School of Economics.

The last twelve months have formed a period of some importance in the history of the University from the point of view of the enforcement of the new Regulations, as during the last year, examinations according to the new courses were held for the first time in the Faculties of Arts and Science for the Intermediate standard as also for the Degree of Bachelor. It would not be right to form a final estimate of the effect of the new Regulations, of their defects and advantages, from the results of a single examination only ; but it may be useful to remember, that the results have not proved disastrous quite in the manner predicted by not a few alarmist prophets. The results indicate plainly that the Regulations, which have raised the standard but allow a wide choice of subjects, have been distinctly beneficial to the better and stronger class of

students. They seem to have pressed hard, in some instances at any rate, upon the inferior and weaker class of students, whose early training has been defective. The results also indicate that educational institutions, where students are gathered together in large numbers, so as to render attention to their individual needs impossible, have comparatively suffered. The situation, it may be conceded, is one of considerable embarrassment. Classes composed of limited number of students who may not only receive adequate instruction from capable teachers, but also draw their inspiration from close personal contact with them, and who get their progress frequently tested, no doubt, represent an ideal state of things. If by any possibility this can be realised, we may reduce to a minimum, the number of those who find it impossible to pass through the portals of the University, and leave it with a blasted career. A fundamental change of this description implies, however, the expenditure of considerable sums of money, either by way of permanent endowments for our Colleges, or in the shape of periodical grants on a liberal scale, from public or private sources. It can never be emphasised too strongly or too plainly that our Colleges have a paramount claim on the munificence of my countrymen to enable them to be maintained as efficient places of

instruction on the most advanced modern lines. At the same time, I would point out, if I may do so without offence, that in the case of some institutions at least, the authorities do not fully realize how the instruction imparted is likely to lose in value, and may, indeed, practically cease to be beneficial to the students, if the classes become unwieldy in size, and the professors lose personal touch with those committed to their care. The very circumstance that all knowledge has to be acquired by our students through the medium of a difficult language other than their vernacular, makes it imperative that special precaution should be taken to test their progress from time to time, and to ensure that acquisition of real knowledge is not sacrificed in favour of unintelligent memory work, to which there is a constant temptation to resort when the maximum of information has to be acquired in the minimum of time. The warning can never be too emphatically given, that unless our boys and young men are trained to habits of accurate thought and expression from the earliest years of their career, unless attention is sedulously paid, not merely to the quantity, but also to the quality of the knowledge imbibed by them, the tests applied by the University must inevitably prove disastrous to their success in academic life.

During the last year, the University has steadily performed the difficult and delicate task of inspection and criticism of the work of its affiliated Colleges. It is a matter for satisfaction that a distinct tendency towards improvement is manifested in a large proportion of the Colleges. At the same time, there is an almost equally widespread tendency to expand the scope of their work, beyond the measure of their strength. It can never be too emphatically repeated that an endeavour on the part of a College to expand the field of its work, and to undertake the teaching of subjects for which adequate provision has not been made, not merely results in injury to the students, but also lowers the character of the institution as an efficient teaching body, if the highest standard of excellence is not maintained. This has proved specially the case in connection with courses for Honours at the examinations for Degrees in Arts and Science, where there is a distinct tendency in some places to undertake elaborate courses with an inadequate staff and insufficient arrangements. In such cases, the University has found it necessary to act with firmness, for if such applications are too readily granted, there is a real danger of superficial treatment of the advanced courses undertaken, as also of neglect of the claims of the average student whose

interests may be sacrificed for the benefit of a limited few of superior talent. The action of the University in this direction has sometimes been misunderstood, and the charge has been brought, without any foundation, that the policy of the University is to restrict within narrow limits the field of work of the Colleges. The apparent hardship may, however, be completely removed, if the provisions of the Regulations about Inter-collegiate Lectures and Junior University Lecturers are loyally carried out by the cordial co-operation of the Colleges concerned. But if there are Colleges, anxious to undertake ambitious courses without adequate preparation, it is refreshing to find other institutions thoroughly equipped for their work by the munificence of private individuals. The reports received from our Inspectors, during the last twelve months, afford conclusive evidence that strenuous efforts have been successfully made in the case of more than one institution to attain the standard of the new Regulations. The most notable example in this direction is furnished by the Krishnath College at Berhampore, where the Maharaja of Cossimbazar, with a munificence worthy of the historic house which he represents, has spent nearly two lakhs of rupees for the improvement of the College, specially in the department of scientific studies, so as to

make it second to no institution of the same type maintained by public or private funds. Other examples of a similar character, though on a smaller scale, are afforded by the Ananda Mohun College at Mymensingh and the Tejnarain College at Bhagalpore. Instances of liberality like these justify the hope that the educational problem is not impossible of solution, and that when the members of our wealthy aristocracy fully realize their responsibility in this matter, and extend their support to the maintenance of struggling educational institutions, there will be no danger of the extinction of private Colleges, which owe their development to an enlightened policy of the Government, and which, if properly maintained, add to the strength and reputation of the University. Before I pass away from the subject of the improvement of our Colleges, I must make a brief reference to the foundation of two important institutions during the last year. One of these, the Training College at Patna, maintained by the Government of Bengal, forms a welcome addition to the limited number of educational institutions where teachers can be adequately trained to qualify them for the difficult and responsible position of instructors of our youths. The survey of the condition of our schools, more than six hundred in number, recently completed by the University, has

established conclusively, that the main source of their weakness is the lack of teachers specially trained for their honourable, if laborious, profession. Radical improvement in the condition of these schools is really impracticable till we have an adequate supply of trained teachers, and I trust that the question of proper facilities for this purpose will be steadily kept in view from year to year. The second institution, to the foundation of which I desire to make only a passing reference, is the University Law College. In the course of the last twelve months, the resolution of the Senate to make adequate provision for the promotion of legal studies has been carried into practice, and the College, where more than five hundred students have taken their admission, has attracted in its very inception the liberal support of two amongst the foremost members of the aristocracy of these Provinces. The Maharaja of Cossimbazar has, with his usual liberality, offered fifty thousand rupees for the award of scholarships, while the Maharaja Tagore has generously offered ten thousand rupees for the Library, as also the valuable collection of books of the distinguished founder of the Tagore Professorship of Law. It augurs well for the future of legal education in this country that with the facilities so liberally provided for study and discussion, a not inconsiderable portion of the students

have already displayed genuine enthusiasm in their work, and it is not too much to hope that the study of law, thus placed on a solid basis by the foundation of the University College as also by the reform and reorganisation effected in existing institutions, may at no distant date produce the most beneficial results.

During the last year, two of the many needs of the University have emerged to view as worthy of immediate and serious attention, namely, the establishment of a University Laboratory, and the extension of the University Library. For the first time in the history of the University, practical examination of a large number of students, who were candidates for the Degree of Bachelor in the Faculties of Arts and Science, was conducted under the new Regulations during the last year. That these practical tests constitute the most important part of the examinations in scientific subjects cannot be disputed, and it is essential that they should be conducted with absolute fairness and without interference with the work of the affiliated Colleges. So long, however, as these practical tests are conducted in the Laboratories of selected Colleges, an imputation may be made, not without some how of reason, that the students of particular Colleges, who are examined in their own Laboratories, are placed relatively in a position of

some advantage. Besides, the conduct of these practical examinations, spread over many weeks as they must be with a steady increase in the number of candidates, serves to interrupt and in some measure to disorganize the work of the Colleges themselves. It is further manifest that the time cannot be far distant, when the University, if it desires to make its tests really effective and its certificates of genuine value, must introduce practical examinations at the Intermediate stage. The need of a University Laboratory, where our examinations may be conducted during a part of the year, and where original investigations may be carried on by our advanced students during the remainder of the term, is thus a paramount necessity, and I trust, that the noble example, which has been so worthily set by one of the foremost captains of industry in the Presidency of Bombay, may be imitated here at no distant date. The second need of the University, to which I have just alluded, is the extension of the University Library, which, before the lapse of many months, will be located in handsome buildings, now in course of erection, through the munificence of the Maharaja of Darbhanga. As soon as the buildings are completed, it will be our imperative duty to arrange for the expansion of our Library, and it would be unworthy of the reputation of the

University to have a Library Building without books to adorn it. In the course of the last few weeks, our Library has been enriched by the acquisition of the extensive collection of the late Professor Pischel, which will prove a storehouse of unique value to workers in the field of Indian Philology and Antiquities; and the direction in which the Library now requires immediate attention is that of scientific literature. It is idle to expect the development of post-graduate research in any branch of study, least of all, in the department of science, until our advanced students are afforded every facility of access to the record of original work previously done in the same line and published in Scientific Periodicals or Transactions of Learned Societies. I trust, it is not too much to hope that the munificence of the Maharaja of Darbhanga, which has given us the Library Building, will be imitated by some of the wealthy aristocracy of these provinces so as to give us a Library where our students may draw their inspiration from generation to generation.

In the course of the survey of the condition of our Schools and Colleges, upon which we have been engaged during the last twelve months, the question of the discipline of our students has engaged the earnest attention of the University. It will not be disputed by any

careful observer that the growth of a tendency to commit breaches of discipline, to indulge in disrespect and defiance of authority, and to rush headlong into the vortex of political agitation and demonstration, which was so widely prevalent among students two or three years ago, does appear to have been arrested. I wish it were possible to maintain further that the situation is now wholly free from danger. I am by no means anxious to take a pessimistic view of the matter, but it would be idle to deny that the conditions, under which a large proportion of our students live, afford them little or no protection from the path of evil and ultimate ruin. In not a few instances, innocent boys and young men of promise, peacefully engaged in the pursuit of their studies, have drunk deep from the fountains of poisonous literature, and have been captured by designing men who have beguiled them into the paths of crime. It is manifest that the danger is neither slight nor easily remediable. In this matter, as in many others, the University must rely mainly upon the active and cordial co-operation of the Principals and Professors of Colleges, of teachers in schools, and of the guardians of the students. On more than one occasion, during the last twelve months, the University has appealed to them for assistance, so as to keep the students away

from the unwholesome excitement and distractions of political agitation and demonstrations, and it is worthy of note that our efforts in this direction have met with a ready response and have not been altogether fruitless. We are, of course, not concerned as a University with those who have stepped into the paths of idleness or vice, who have abandoned the pursuit of their studies and are no longer under our control. But it is our paramount duty to afford adequate protection to the innocent and guileless, and to save them, if need be, even from the verge of ruin. The problem is by no means easy of solution, but there are, I venture to think, two powerful and effective remedies at our disposal. In the first place, a systematic extension of the residential system is immediately needed; in the second place, a well-planned and determined effort must be made to impart moral instruction to our boys in Schools and to our young men in Colleges at every stage of their career. In so far as the development of the residential system is concerned, the progress we have hitherto made has been neither rapid nor satisfactory, although the Indian Universities Act recognizes it as a fundamental principle that it is the duty of all affiliated Colleges to make adequate provision for the residence of such of their students as do not live under the

protection of their guardians. The principal difficulty, here, is one of funds, and I make no secret of my conviction that without a liberal grant-in-aid from the State, continued for many years, and supplemented by private effort on an equally extensive scale, it is impossible to provide Colleges and Schools with adequate and well-managed places of residence for their students. No expenditure, in this direction, can however be deemed excessive, when we realize how great and obvious the danger is, when young men, at the most impressionable period of their lives, are left free to imbibe dangerous doctrines not conducive to mental health and discipline. On the other hand, it must be conceded that an equally obvious danger may arise with the expansion of the residential system, unless the students gathered together are brought into intimate personal relation with their teachers and professors, and receive healthy inspiration from them, which is the most valuable result of true collegiate life. The success of the residential system must consequently be dependent, in a large measure, upon the devotion and sagacity, the wisdom and sympathy of our teachers. The practical value of the protection from evil which may thus be afforded to our students, if they are brought up under the personal guidance of teachers,

anxious for their welfare and watchful of their best interests, may be substantially enhanced, if facilities are afforded for systematic moral instruction. Ever since the famous resolution of the Government of India on the subject, issued more than twenty years ago, in which stress was laid on the importance of moral training in Schools and Colleges, the subject has been kept in public view, but no well-planned scheme applicable to all Schools and Colleges, has ever been developed. I do not for a moment suggest that any practical or permanent advantage is likely to be gained, if students are made merely to commit to memory ethical rules and formulas selected from the great writers of the past, or if they are induced to examine the primary grounds of moral obligation; but I do maintain that special arrangements ought to be made to present regularly to youthful minds concrete instances of noble and virtuous life. If we look through history, few instances can be found of a noble life in any one, who has not had noble examples presented to him by the instructors of his youth. If the elements which constitute the ground-work of a noble character, and are destructive of the ignoble parts of our nature, are thus systematically illustrated and indelibly impressed upon the minds of our students and youngmen, throughout their

career in School and College, if further they are carefully trained as they grow older in the process of self-examination and self-criticism, there cannot be the remotest doubt that the most beneficial results will follow in the development of a robust moral character and of a fine feeling of loyalty and devotion amongst them. It may be conceded that for the attainment of such elevation and refinement of character, we must secure for our instructors, men specially qualified, and the selection of suitable teachers of the right type may, in the beginning, prove a difficult task. But once they have been secured, there is little doubt that arrangements may with perfect ease be made in every School and every College where specially appointed instructors will impress upon their students, in some degree at least, those fine sensibilities, those tastes, ambitions and desires which lead to the development of a lofty character. For more than half a century, we have taken the risks inseparable from an exclusive expansion of the intellectual faculties of our students, and it is not a day too soon to undertake the development of the moral side of their nature.

There is only one other topic of fundamental importance to which I must allude on the present occasion, a delicate subject closely connected with the question of the development

of the residential system and of the moral instruction of our students to which I have just made reference. For the attainment of these objects, we must be dependent almost entirely upon the loyal and enthusiastic co-operation of the gentlemen to whom is entrusted the training of our youths. I do not repeat the language of mere convention, when I say that for the members of the teaching profession I entertain the highest respect and admiration, and the mode in which the majority amongst them have hitherto discharged their responsible duties even in times of ferment and excitement, has not only been above all reproach, but has been really worthy of the highest commendation. It is a matter for the keenest regret, however, that in isolated instances, individual teachers and professors whose education and antecedents would have justified an implicit confidence in them as responsible guides of our students, have betrayed themselves into actions and utterances unworthy of the position of trust they occupied. The University has, without hesitation, interfered whenever conduct, so unbecoming in a teacher or professor, has been brought to its notice. The cases, no doubt, where the University has felt it its duty to exercise disciplinary jurisdiction over Schools and Colleges in such regrettable circumstances, have fortunately been of some rarity, and the

action taken may, I trust, serve as a warning and produce a wholesome effect. It would be fruitless to examine, from a theoretical point of view, the abstract right of a teacher to hold whatever political opinions prove commendable to him, or to take systematic part in political agitation and demonstration; for the reasonableness of one aspect of the matter seems to me to be beyond dispute from the point of view of the welfare of the students. The teacher, who has deliberately chosen the instruction of youth as the vocation of his life, must so regulate his conduct, that his actions and utterances may not prove to be injurious examples to those committed to his charge. Each particular position in life has its own special duties and responsibilities, which modify and limit individual liberty of action in a way and to an extent which may not admit of precise definition, much less of legal enforcement, but which all the same may be generally indicated with sufficient clearness from a common sense point of view. The teacher of boys shares with their natural guardians, their parents and elder relatives, the privilege of the widest opportunities of directly and strongly influencing their minds and characters, of giving an early and powerful bias to their entire intellectual and moral development. An instructor of youth is in a position to do this, not only through

direct verbal teaching in the class-room, but also in the way of example, inasmuch as, boys interested in, and probably attached to a teacher, will naturally be influenced not only by what he tells them in the class-room, but also by what they learn as to his deeds and utterances outside School or College. A teacher scrupulously abstains from political matters within his class-room, but at the same time he devotes much or all of his leisure hours to political activities and agitation; his name is prominently before the world in connection with political organizations and functions; the newspaper press constantly quotes or reports political speeches made by him on public occasions: what effect may all this be legitimately expected to have on the minds of his pupils, specially if his actions and utterances are not always of the most discreet character? The answer cannot be doubtful; their minds will inevitably be attracted towards political affairs and political agitation, for the reason that it is this which evidently constitutes the main life-interest and lifework of one who stands towards them in a position of authority and to whom they are habituated, and in most cases, no doubt, perfectly willing, to look up with respect and deference. This kind of influence will naturally be most potent in the case of those teachers who have managed to

acquire a firm hold on the minds of their pupils by altogether legitimate and praiseworthy means—men whom their pupils like and esteem, possibly love and revere, as persons of high scholarly attainments, as painstaking and devoted instructors, adorned with many of the virtues of private life and taking a friendly or fatherly interest in the welfare of those entrusted to their charge. In fact, among teachers of this description, the most effectual propaganda for political pursuits will be made just by those who excel most highly in their profession and who in a wider sense are the best men. I shall perhaps be told that the example set up by a teacher of high character and noble aspirations, cannot possibly be harmful to his pupils even with regard to political activity; but the obvious answer is that we parents and natural guardians do not desire our boys to be prematurely drawn into political activity or even political speculations by the influence of any man, however worthy and excellent he may be. We do not wish that at a time of life when the minds of our boys should be concentrated on progress in their studies and on the formation of habits of regular and methodical work, they should be induced by any influences whatever to indulge in speculations as to how the political condition of the country may be improved and to

cherish untimely aspiration and ambition to shine prematurely before the world as political reformers. We should object to such diversion of youthful thought and energy from their legitimate objects, even if we had an absolute guarantee that the political aspirations and endeavours of our boys will keep strictly within the limits of what is legal and constitutional. But our objection is enormously intensified by the obvious consideration that such a guarantee cannot possibly be given by any one, not even by one who possesses an apparent control and influence of the widest description upon the students. Assume that the teacher who makes politics the business of his life, however extreme his political views and aspirations may be, is a man of some experience of life and affairs; his judgment may be mature, he may be in a position to realize his personal responsibilities, and he probably possesses sufficient self-control and discretion to curb feelings and convictions which otherwise might bring him into conflict with the law. But how about the boys whom his example prompts and inspires? Can we justly expect that they, all of them, should be wise and cautious as well as eager and enthusiastic, should manage to discriminate successfully between what is permissible and legitimate and what is not, should have themselves sufficiently in hand to stop

and reflect before the ardour of their convictions urges them on lines of action subversive of the peace and order of the community and probably destructive to themselves? The lamentable experience of recent years leaves no room for controversy; there is clearly no basis for any such expectation, and it is thereon that we base our emphatic objection to any sort of influence which tends to impart to the minds of our boys a premature bias towards politics. I look at the matter entirely from the academic point of view, and I earnestly call upon teachers who hold it to be their duty to figure as active politicians out of School or College hours, to reflect on the special responsibilities incident to their station in life, in the present circumstances of the country. I make no secret of my deepest conviction that men of this type, however honourable they may be, are not safe guides of the young, if by a guide we mean a man who leads and influences not only in the way of instruction and advice, but also by the practical example he sets to students by the conduct of his own life. Let them remember that the true test of their ability and virtue lies in the character and career of those whom they have instructed. Let it not be said with any shadow of truth that while they had the power to train the minds, to bend the inclinations of their pupils, which ever way they will,

their teaching and example failed to raise up loyal and honourable citizens for the welfare of the State. Let not the noble band of instructors of our youth forget by any means that they are but priests who minister in the Temple of Learning, where no devotion of experienced teachers and aspiring scholars is too great for the all-absorbing pursuit of search after truth and diffusion of knowledge; and let them, with all reverence and in all humility, take as their motto the memorable words of the wise man of olden time: "Happy is the man that findeth wisdom, and the man that getteth understanding; for the merchandise of it is better than the merchandise of silver, and the gain thereof than fine gold. Give instruction to a wise man and he will be wiser; teach a just man and he will increase in learning."

UNIVERSITY CONVOCATION.

11th March, 1911.

Your Excellency, Ladies and Gentlemen,

Another year has rapidly rolled away since we last met in Convocation, and the duty again devolves on me to review in brief outline the story of our academic life. This annual retrospect, taken in accordance with a custom that has now been recognised for over half a century, is, I trust, not altogether valueless from a practical point of view ; it enables us, at any rate, to realise what remains to be accomplished in spite of the successful efforts we have made for the progress of education, and to express our gratitude to those who have assisted us materially in the discharge of our obligations.

During the last twelve months, we have lost, from the ranks of our Fellows, two distinguished members, who had unflinchingly devoted a lifetime to the best interests of education. By the death of Chandranath Bose, we have lost one of a small band of brilliant graduates, whose career in life has spread the reputation of this University, far and wide. His contributions to the literature of Bengal are of abiding value and perennial interest,

and they will serve to hand his name down to posterity as that of one of the brightest products of English education in this country. By the death of Alexander Tomory, we have lost an experienced educationist who wielded an immense influence for good upon more than one generation of Indian students amongst whom his memory will be lovingly cherished. His services to the University as a syndic, an examiner and a lecturer can never be too highly acknowledged, and the devotion and willingness, with which they were rendered, were most readily appreciated by all who profited by his guidance or co-operation. But while we mourn the loss of these two distinguished colleagues, we cannot afford to forget that the system, by which the exalted office of the Viceroy and Governor-General of India is held for a limited term, has deprived us of the beneficent guidance of our late Chancellor. This is neither the time nor the place in which an elaborate eulogy can be fittingly pronounced upon the administration of the Earl of Minto, unquestionably one of the most memorable in the annals of British Indian history, and my voice can after all add but a feeble testimony to the enthusiastic acknowledgment rendered both in this country and in England. But I should fail in my duty, if, as the spokesman of the Senate, I did not say that the name

of the Earl of Minto will be ever gratefully and affectionately remembered in this University as the founder of the first professorship of Economics and as the Chancellor who, during one of the most critical periods in our development, guided our progress with true sympathy, practical wisdom and unerring sagacity.

During the last twelve months, the University has continued its vigorous efforts for the promotion of post-graduate studies and research. We have fortunately secured the services of an able Japanese scholar, Mr. Yamakami, and have arranged with him to deliver a course of lectures as University Reader on Systematic Buddhism. The subject is one of abiding interest, and the materials available to the distinguished lecturer are practically inaccessible, in this country and possibly also in Europe, to students of this important department of Indian Philosophy. Satisfactory arrangements have further been made for post-graduate instruction in Pali language and literature as also in Comparative Philology, while the University Lecturers in the field of History and Sanskrit learning have substantially supplemented the work done in affiliated Colleges. In the domain of Economics, the Minto Professor has begun the first course of his public lectures which have aroused considerable interest amongst all serious students

of the subject, and I am assured that the large classes of students, who regularly receive instruction from him, number among them young and enthusiastic scholars, who, if opportunity were afforded to them, might lay the foundation for a genuine school of Indian Economics. In recognition of the importance of these studies, a distinguished graduate of this University, Babu Satischandra Ray, himself a devoted student of Indian Economics, has presented to the University his valuable collection of Economic works and also a sum of two thousand rupees for the improvement of this department of our Library; I venture to express the hope that this example will not lack imitators. I have dwelt for a moment upon post-graduate studies, because the importance of our work in this direction, there is reason to apprehend, is not always rightly appreciated. The Colleges affiliated to the University have, in the large majority of instances, found it impossible with their restricted means to make adequate and systematic arrangement for post-graduate studies, and it seems not unlikely that, for many years to come, students who aspire to proceed to the Degrees of Master of Arts and Master of Science must concentrate themselves in an extremely limited number of centres where liberal and enlightened efforts have been vigorously made

for post-graduate instruction. But even in these selected places, cordial co-operation among teachers of ability and experience is imperatively needed to maintain the high standard intended by the Regulations. It will not be seriously disputed that there is no lack of talent among our advanced students, as is indeed conclusively indicated by the quality and amount of work accomplished by them in recent years. I need only mention the various theses which have been submitted for the Degree of Doctor of Philosophy, for the Griffiths Memorial Prize and for the Premchand Roychand Studentship, many of which have been published in our series of University Studies. Some of these, as indicated by the reports of examiners, have reached a high level of excellence, such as would do credit to students engaged in research in any University. Indeed, three years ago, when the University altered the Regulations for the Premchand Roychand Studentship and substituted a thesis as the test instead of an examination, it was regarded by not a few as a bold experiment. The new system came into operation during the last year, and it is a matter for congratulation that not only was there no lack of candidates, but rather there were so many papers of considerable merit in diverse subjects, that the selection was a matter of

some nicety and discrimination. I trust, therefore, that the work done by our advanced students may meet with encouragement richly deserved, and that funds may be placed at our disposal to enable us to direct and co-ordinate research, so as to make it productive of fruitful results.

During the last year, the University has been the recipient of a number of endowments. Three of these will serve to commemorate the varied scholarship and many-sided activity of distinguished members of the Senate like William Hastie, Nagendra Nath Ghose and Debendra Nath Ray, while another will keep alive the memory of one of our graduates, Manmatha Nath Bhattacharyya, who attained to eminence in the public service and gave ample proof of talent of an exceptional order. It is a matter of genuine satisfaction to all members of the University that our honoured Rector, Sir Edward Baker, has allowed his name to be associated with another of these endowments, established by the liberality of the Maharaja of Nashipur. Two other endowments, one founded by Kumar Sarat Chandra Sing and the other by Babu Jagabandhu Bose, both for the establishment of scholarships to be awarded on the results of the Matriculation Examination, deserve public acknowledgment. These endowments, large

or small, amply indicate the interest taken in University education by men of culture in various walks and different spheres of life; but, I trust, I may be permitted to observe that they are often clogged with conditions which take away in a considerable measure from their general utility. While upon this question of University endowments, I must not omit to mention a timely grant of five thousand rupees made by His Honor the Rector for the purposes of the University Library. The handsome structure which we have been able to erect by the munificence of the Maharaja of Darbhanga is now fast approaching completion, and we confidently hope that, in the course of this year, it will be ready for the reception of the University Library for which it has been primarily intended by its generous founder. Although our Library is valuable from the point of view of the specialist and contains books of rarity and importance in different departments of Science and Literature, it is entirely inadequate to meet the legitimate demands of our advanced students. Funds, therefore, are urgently and imperatively needed for the extension of the University Library, and we are, meanwhile, grateful to our Rector for the readiness with which he has made a grant to enable us to make a beginning.

During the last twelve months, the question of alterations in the Regulations has engaged the attention of the Senate on more than one occasion. The Regulations have now been in force for five years, and although at the time of their introduction, they gave rise to considerable apprehension as to their possible effect upon the progress of high education, it must be conceded by the most unfriendly critic, if I may be permitted to say so without impropriety, that they have fairly stood the test of time. It is no ground for surprise, however, that in certain directions, conditions have changed so rapidly during the last few years, that the Regulations may require re-examination and re-consideration in minor details; it would, indeed, be idle to expect that any system of Regulations, even though framed with the utmost care and caution, could be treated as unalterable for all time to come. In one instance, the Senate has found it necessary to make a change of a fundamental description, I refer to the extension of the period of qualifying study for a Degree in the Faculty of Law from two to three years. It cannot be disputed that the ultimate effect of the change will be not only to secure thoroughness of training in our students, but, at the same time, to reduce the pressure of examinations on them; and for the sake of the profession to which it is my

privilege to belong, I rejoice to think that by this alteration in the Regulations, taken along with the re-organisation of the Colleges affiliated in Law, amongst which may be mentioned, as the most recent examples, the institutions at Patna and Dacca, the system of legal education, which had hitherto been one of the weakest points in our academic system, has finally been placed on a sound and satisfactory basis.

During the last twelve months, the University has been sedulously engaged in the periodical examination of the secondary Schools and Colleges within its jurisdiction. In so far as secondary schools are concerned, the effective control now exercised by the University would have been impracticable but for the cordial co-operation and assistance of the Local Governments, whose officers have placed valuable materials at our disposal. There is no room for controversy that the general condition of our secondary schools has markedly improved during the last two years. But, though strenuous efforts have been made in the case of numerous institutions to attain what must be regarded as a moderate standard of efficiency, I am not optimistic enough to conceal from myself the unwelcome truth that immense sums will have to be spent before the schools can be deemed fully qualified to prepare students

ultimately destined to receive a University education. The subject, in which the teaching is most palpably defective, and, in many instances, conducted on what must be regarded as by no means rational lines, is English. Indeed, when we remember that our students, in the earliest years of their life, learn the first rudiments of English language from teachers who themselves never had any adequate training, it becomes a matter for astonishment that many of them learn so well as they do. This is a subject which demands immediate attention. Mere severity of examinations does not always effectively advance the standard of teaching; and the aim of all sound systems of education ought to be, not so much to keep back the unqualified as to reduce their number to an absolute minimum. The efforts of the professors in our Colleges must be lamentably wasted if they are called upon to impart instruction to students imperfectly trained in the course of their career in schools, and it would be a real assistance to the Colleges if a comprehensive scheme for the radical improvement of secondary education could be speedily brought into operation. During the last twelve months also, we have been engaged in an examination of the condition of our affiliated Colleges, a task the importance of which is equalled only by its delicate nature. Here,

again, it may be fairly conceded that, during the last five years, there has been a remarkable improvement in the general condition of our affiliated Colleges. If any friend of Indian education, who was familiar with the condition of our Colleges in 1905, could be persuaded to revisit them in 1911, he would be struck by the unquestionably higher tone which now prevails in them. The staff has been strengthened and is now less inadequate to the performance of the work entrusted to them, while the sphere of their activity has in many places been suitably circumscribed. At the same time, in the case of institutions where instruction is given in the natural or physical sciences, there has been a visible improvement in the laboratories and equipment for practical work. In many instances, again, there have been notable improvements effected in College buildings. These creditable results have been achieved in most cases by private munificence supplemented by generous grants-in-aid from the State. But although the general condition all round shows considerable improvement, two outstanding problems have emerged from the results of the inspection during the last twelve months, problems of paramount practical importance, which claim immediate attention and are by no means easy of solution. In the first place, the accommodation in the

Colleges is entirely insufficient to meet the demands of the natural growth in the number of our students; in the second place, the provision made for the residence of our students is of the most inadequate type. The first difficulty has been, to some extent, met by a relaxation of the Regulation, which fixes the maximum number of students admissible into any class of a College for purposes of instruction. The remedy is of a temporary character, and is wholly unsatisfactory; it seriously affects the efficiency of the teaching and operates to the detriment of the very students for whose benefit the concession is intended. The result is specially harmful in the case of scientific subjects, where only a limited number of students can work with advantage in a laboratory of a prescribed size. The only satisfactory remedy is the establishment of additional Colleges and the expansion of existing institutions. The problem must be faced without delay, and can be solved only if the aristocracy of these provinces will take the lead in the matter. I feel little doubt that if they will come forward with the resources at their disposal, they will have established a claim for aid from the State which will not be, as it cannot be justly, withheld. The second problem to which I desire to invite special attention is the question of the residence of our students, a subject, I

venture to think, of the gravest concern to all persons genuinely interested in the higher education of our youths. The Indian Universities Act recognises it as a principle of vital and fundamental importance that all students who read in an institution affiliated to a University should reside either with parents or guardians or in suitable lodgings approved by the College. But it is undeniable that though the Regulations, framed on the basis of the Act, impose the duty entirely upon authorities of Colleges to make provision for the residence of their students, only partial success has been hitherto achieved in this respect. I am not unmindful that sustained effort in this direction has been made for some years past by the Government of Bengal and in recent years by the Government of Eastern Bengal and Assam; but though it may be conceded that the results have been on the whole beneficial, it would be idle to deny, the field is so extensive, that considerable work yet remains to be accomplished. That the situation is fraught with the gravest danger cannot be questioned for a moment. The residences now provided are in many instances so unsatisfactory, the arrangements for superintendence of so rudimentary a character, and the lack of intimate association between teachers and students so generally the rule, that the present system, if

continued, cannot reasonably be expected to foster the conception of true academic life among our students. The surroundings, in which many of our students live, and the obvious dangers to which they are so often exposed, are calculated in many cases to effect the complete ruin of the students, not merely from the moral or the physical but also from the intellectual standpoint. What is imperatively needed is the development of a comprehensive policy whereby all our Colleges in course of time will be furnished with suitable residences for their students, and it is a matter for congratulation that the subject has attracted the attention of His Excellency the Chancellor. I trust funds will be available, adequate for this great undertaking, and I earnestly hope that those amongst my countrymen, who are able to appreciate the benefits of education and are enlightened enough to realise the dangers inherent in the present system, will vigorously supplement the generous efforts of the State. I do not feel the remotest doubt that those who assist in the introduction and the development of the residential system will, in years to come, be justly deemed to have deserved the gratitude of successive generations of Indian students.

There is one other topic of considerable interest and importance upon which I should

like to dwell for a moment before I bring my address to a close. During the last twelve months, the Maharaja of Cossimbazar, who has already earned the gratitude of the Members of the University as a benefactor, has given fresh proof of his munificence and founded an endowment for the promotion of research into the History of Indian Mathematics and Astronomy. I rejoice to think that this endowment has been created at an opportune moment when we are in a position to benefit by the guidance of the distinguished scholar who now adorns the office of Registrar and who is indisputably the greatest living authority on the subject in this country. It is not necessary for me on the present occasion to outline the work to be accomplished in this domain. It is sufficient to say that after the manuscripts on the subject of Indian Mathematics and Astronomy, many of them not yet printed, shall have been rescued and translated, the learned world will be better qualified than now to judge of the historical position and the true value of the work achieved by our ancestors in this fascinating field of study. In this connection, I am tempted to offer a few observations on what has long since struck me as a decided shortcoming of our higher teaching. Neither our Universities by their Regulations and courses of studies, nor our

Colleges by the instruction they impart, can be deemed to make adequate provision for what may comprehensively be called Ancient Indian History. I take the term History in its widest sense as inclusive not only of political history and history of external relations, but also history of social and legal institutions, history of culture, of literature, of philosophy, of Arts, and of the Sciences. Our earlier and earliest history demands from those who aim at a mastery, if not advancement, of the knowledge of the subject, a very considerable amount of learning in the domains of general history, of philology, and of the comparative sciences of Religion and Institutions. That Indian History in this sense has a special claim on Indian learned institutions will hardly be contested. But what, I ask, has been done to meet our obligations in this respect? The activity of European and American scholars and learned institutions in these fields is well known. New and important results are constantly achieved, and where definite conclusions cannot be attained for the present, questions are raised and problems are formulated to stimulate further research. In addition to this, such is the thoroughly practical organisation of University teaching in Western countries that every advance made is forthwith communicated to the special students of the

subject. In India, on the other hand, there is absolutely no agency of this type. How few amongst us realise, for instance, that the subjects to which I refer, ancient Indian history, antiquities, and literature, cannot possibly be studied in an adequate manner with the help of familiar text-books. Text-books or class-books, to which our students are so deeply attached, are apt, in every progressive branch of knowledge, to fall behind the times within a few years, sometimes within a few months. This difficulty does not affect European or American Universities, where the study of oriental subjects is taken up by a comparatively limited number of persons, who rely not upon works of the nature of text-books, but rather upon the lectures of specialist University Professors. A Professor of this type, himself engaged in research, widens the bounds of knowledge, and incorporates in his lectures all the important information on his subject available at the time; he discusses new facts that come to light, new theories that are put forward, on the very earliest opportunity, and is expected to bring up his lectures to date constantly and to refer his students to the original authorities. The result is that a student trained under this system, before he leaves the University, has been put in complete possession of the very

best and most recent exposition of his special subject. How far professorial lectures in India come up to this standard in any subject, is a point I am not concerned to discuss on the present occasion. In many branches of knowledge, which are widely cultivated, the existence of standard works may perhaps make up for professorial shortcomings. But in the peculiarly Indian subjects, to which my remarks are devoted, the absence of true professorial teaching of the type I have sketched, is absolutely fatal to all true proficiency and scholarship. What our Universities undertake, and what they are expected to undertake by students trained under a radically erroneous system, is to prescribe text-books as far as they can, text-books for even the most advanced subjects, text-books, in many instances, hopelessly antiquated or ludicrously inadequate. In addition to this, the Indian student labours under a special disadvantage, for while the European student of ancient history, civilisations and literature is able to read books written not only in his own language, but also in several other leading languages, the only sources of information open to the majority of Indian students are works written in English. The Indian student, therefore, unless the lectures of his Professors make up for it, remains permanently excluded from possibly the most

important and indispensable sources of knowledge. That I do not exaggerate in the least the peculiar difficulties of the Indian student, even in the study of subjects specially Indian, may be illustrated by one striking example. It is now more than four years ago that the learned world of the West was startled by the announcement that in certain documents, written in cuneiform character and excavated in North-Western Mesopotamia, there were mentioned, among other Gods, bearing strange and novel names, at least four well-known Gods belonging to the old Vedic Pantheon, Mitra, Varuna, Indra, and the two Ashvins. This most remarkable discovery of documents dating back to the fifteenth century before the Christian era and proclaiming the first appearance of the Aryans in History, immediately arrested the attention of scholars in all the Universities in Europe; the subject was mentioned, examined and discussed in every course of lectures on ancient Asiatic History and was brought to the knowledge of all advanced students of this subject. But how was this startling discovery of the great Gods of our Vedic ancestors being invoked at that early period by the Kings of Mitani, far on the upper reaches of the Euphrates, received in India? Has the topic been competently discussed by any Indian scholar? Has it been

even mentioned in any single course of lectures delivered in Colleges and Universities, or are we to wait till this discovery passes into some perennial text-book which our Board of Studies may hereafter prescribe? The backwardness of Indian scholarship in the field of Indian history, antiquities, philology, is, in fact, conspicuous all round. How many Indian students of Vedic Sanskrit, for example, have considered it worth while to add to their knowledge of the language and antiquities of the Indian branch of the Aryan family, a competent knowledge of the language and religion of the closely cognate branch constituted by the ancient Iranians? Or, to ask another pertinent question, has any Indian Professor ever attempted to give to his pupils an exhaustive account and criticism of the great theory, first definitely started by Pischel and Geldner, according to which the Rig Veda should be interpreted not, as most previous scholars had done, as a book separated from Indian literature by a wide gulf and to be viewed in connection with the oldest literary monuments of other Aryan nations, but rather as a book purely and genuinely Indian in character. Here, again, I am afraid, the answer must be in the negative, in spite of the fact that the theory is so essentially pro-Indian that it might be expected to attract the attention and rouse

the interest of Indian scholars. In all these things, indeed, Indian Scholarship must be pronounced hopelessly backward, when we consider how totally regardless the Indian Universities appear to be of what in these respects is their unmistakable duty. We know that our Universities and Colleges afford ample scope and facilities for the study of such historical events and periods as the Italian Renaissance, the Reformation in Germany or the French Revolution. This is quite in order. But should we not also make provision for studies peculiarly Indian and bear in mind that India also has had important Renaissances and Reformations of her own? It is hardly to our credit that the best graduates whom our Universities send forth in growing numbers, though admirably equipped with a stock of miscellaneous information, should lack not only an intimate knowledge of the history and the development of India, but also that critical capacity which springs from such knowledge and the absence of which renders all teaching intrinsically hollow and barren.

I cannot suppress one further reflection which suggests itself to me in connection with this topic. We Indians naturally believe that there is much in our past upon which we may look back with legitimate pride and admiration. We are aware that our country early

developed a high type of civilization and culture, that Indian poets and thinkers have made contributions of permanent value to the literature and thought of the world ; and that India, in ages long gone by, had many great and wise rulers and has at different periods enjoyed high material prosperity. I, for my part, share in these beliefs and convictions to a large extent. But, on the other hand, I cannot blind myself to a real danger that a certain amount of misapprehension and exaggeration may enter into this conception of our past, specially if such conception is based on a vague and uncritical estimate of Indian History. Let us be candid, fair to ourselves as well as to others. There is, after all, no valid reason to believe that the Indians of old times were an altogether perfect and ideal people, that it was they who first invented all the arts and laid the foundations of all the sciences, and that in the ancient days,

“ That primal age which did as gold excel,
Seasoned its acorns with keen appetite,
And thirst to nectar turned each springing well.”

the Indian Commonwealths were so perfectly ordered and governed that poverty, distress, and famines were absolutely unknown. Such fanciful estimates of the greatness and happiness of old times are to be strongly deprecated, for the indiscriminate admirer of the Past is apt to

become a very unfair critic of the Present. What we require, are investigators of our past, fully fair-minded, but, at the same time, fully clear-eyed and brave hearted—men animated by generous sympathy for what we were and what we accomplished in old times, but, on the other hand, fully prepared to point out where we achieved little or failed altogether; ready to acknowledge, without shrinking, weak points of national character and their disastrous consequences; unwilling to hide defects of ancient modes of thought, institutions, customs, practices,—men, in short, who are brave in the bravery of their conviction and do not hesitate to acknowledge and stand by historical facts even if they should be highly unpalatable. ‘Great is the strength of truth and it will prevail’; and let me add, it is not only bound to prevail but will also prove a source of true blessing to those who are able to recognise and courageous enough to acknowledge it without reserve. It, therefore, behoves us—and by us, I mean in the first place the Indian Universities—to do our best to foster by all means in our power a true historical spirit in our midst. I, for my part, indeed, would be the last person to depreciate lines of study which are mainly or even purely of theoretical or speculative interest; for it is vital for learned institutions to promote in the first

place the search for truth—truth pure, and simple—irrespective of practical results and applications; but it is evident that historical studies, at any rate, are not only theoretically interesting, but also possess an eminently useful side; for the Past, if rightly understood and interpreted, is pregnant with the most precious lessons for the Future.

UNIVERSITY CONVOCATION.

4th February, 1911.

MY LORD,

Among the many privileges enjoyed by our University, we highly prize that of conferring Degrees *honoris causa*. This privilege possesses quite a special value and significance, for it enables us to associate with ourselves, from time to time, eminent persons who have not proceeded to a Degree in the ordinary way, and thus to remind ourselves as well as the outside world that our University claims and acknowledges relations, interests, sympathies, wider than what is commonly understood by the term academic, interests and relations which, indeed, may be legitimately designated as national and imperial. We rejoice to think that now five years ago, we were allowed to give to these wider relations their fullest and fittest expression by enrolling as one of our Honorary Doctors in the Faculty of Law His Gracious Majesty King George, at that time Prince of Wales.

To-day, My Lord, I as spokesman of the Fellows of the University of Calcutta, request you to admit to the same Degree an illustrious kinsman of the Royal House of England, His

Imperial and Royal Highness the Crown Prince of the German Empire and of Prussia, who has now for some time been a guest of this country and its Government. That the recipient of the Degree is a great-grandson of Queen Victoria of loved and revered memory, would alone suffice to secure to him the affectionate regard of every Indian, and to account for our wish to do him such honour as is in our power. But, I may say, there are additional weighty motives for our present action. That Princes representing the great Ruling Houses of the West should desire to render themselves acquainted with India through personal visits, we take as a proof that their interest in our country, our institutions, our development is growing; and we are highly gratified by such friendly interest and are proud to think that the progress of modern India, rendered possible by the fact that we belong to a mighty Empire and enjoy the blessing of a generous Government, is not all unworthy of attention and study on the part of other nations. On the present occasion, the Prince who has come to our shores is, we are aware, the representative of one of the truly great nations of the West—a nation strong in arms, strong in the patriotism of its citizens, strong in knowledge and culture; nor are we unacquainted with the history of Modern Germany, with the great things accomplished

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there by wise and strong rulers and a loyal and strenuous people working in unison; and we are gratified by this opportunity to give some outward expression to our feelings of esteem and admiration.

Reflections and feelings of this kind will no doubt readily suggest themselves to the mind of every thinking Indian on the occasion of the presence among us of the Crown Prince of Germany, and the Fellows of one of the great Indian Universities may, I presume, hold themselves justly entitled to give voice to them. But I feel urged to add a few further observations of a character somewhat more strictly academical, more intimately connected with the functions of a University whose primary task is the advancement and dissemination of knowledge and learning. On the present occasion, the thoughts of us, the members of an Indian University, naturally turn most readily and spontaneously to Germany in one particular aspect—to the Universities of Germany as the chosen homes of learning and research. India, indeed, cherishes with pride the memories of times long gone by when she was a seat of high intellectual and spiritual culture and of a learning developed in many directions, times when the great leading nations of the modern world had not even emerged into the light of history. But that ancient

glory has faded away, and we fully realize that at the present time and probably for a long time to come, we have to occupy the position of learners. We, therefore, consider it incumbent on us to render ourselves acquainted with the characteristic features and excellencies of the learned institutions not of Great Britain only but also of other Western countries; and among the latter, none, indeed, are more worthy of study and emulation than the great German Universities. I may be allowed to single out two features of those institutions which appear to be specially worthy of attention. In the first place, the admirable way in which they manage to combine the functions of teaching and original investigation, on the one hand exalts and ennobles teaching, and, on the other hand, enormously stimulates and facilitates research. In the second place, the width of the intellectual interests which those institutions represent, is truly astonishing; the learned men of the German Universities have taken for their province the whole of Nature and the whole of Humanity; the intellectual curiosity that prompts them is unbounded, their sympathies are universal.

This naturally leads me on to one further point—a point which, indeed, has had great weight with us, the Fellows of this University, when we resolved to offer the highest honour

at our disposal to the Crown Prince of Germany. We are aware of the supreme value of what German scholars and investigators have done towards the advancement of knowledge and learning in all its branches ; but, on the present occasion, we remember with special gratitude what a section of them has done in the field of Indian studies—of studies bearing on the history, the languages, the literature, the philosophy of our beloved mother-land. As soon as the great and ever-memorable British Pioneers in this field—men such as Sir William Jones, Henry Thomas Colebrooke, Charles Wilkins, Horace Hayman Wilson, James Prinsep—had provided the indispensable materials for a knowledge of India and its past, it was German scholars and literary men who first distinctly realised the true significance of this new department of knowledge, who made it clear to the world that Indian literature and philosophy, history and languages, may justly claim the attention not only of local administrators or of a new section of specialising philologists and antiquarians, but also of the philosophic historian, the philosophic student of language, the comparative critic of literature, in fact of every thinker in the West as well as in the East. When the first German rendering of *Sakuntala*—that pearl of our dramatic literature—was brought out only two years

after the first English translation, it was at once welcomed in terms of enthusiastic praise by the great Goethe. The brothers Friedrich and August Wilhelm Schlegel—twin leaders of a great new literary and critical movement—were the first men on the Continent to learn Sanskrit and clearly to explain, with almost prophetic insight, what fruits were to be expected from the methodic study of the “Language and Wisdom of the Indians”; and no less a man than the many-sided philosophic statesman Wilhelm Von Humboldt was the first to give a fully penetrating and sympathetic analysis of a Sanskrit philosophical work. About the same time, Francis Bopp, who had gained from his study of Sanskrit grammar a totally new insight into the nature of languages, laid the foundations of the imposing structure of comparative philology. Towards the middle of the last century, it was a band of young German scholars that first undertook to give to the study of Indian philology, literature, and history, a sure basis by drawing into the sphere of their investigations the oldest monument of Indian literature, the sacred books of the Veda. In this connection, I only mention the names of Theodor Benfey of Göttingen, Rudolph Roth of Tübingen, Albrecht Weber of Berlin, and—a name endeared to every Indian heart—Friedrich Max Müller, who, trained in Germany

and France, found so splendid a field for his many-sided activity in hospitable England. Of books, I need only mention the truly monumental Thesaurus of the Sanskrit language compiled in seven massive quarto volumes by the joint labours of Rudolph Roth and Otto Böhtlingk. The generation of scholars to which all these eminent men belonged has found fully worthy successors. At present, each of the twenty-one German Universities makes provision for the teaching of Sanskrit, and all the greater Universities have special professorships for the subject. We have, besides, had occasion to welcome here in our midst quite a number of German Orientalists some of whom have stayed in India as teachers for a long time, eminent men like Haug, Bühler, Kielhorn, and one of our own graduates, Blochmann, and we readily acknowledge the excellent work done by these distinguished scholars. European Orientalists, no doubt, have profited much by the store-house of knowledge possessed by our learned men, the Pandits ; but, on the other hand, they have infused into oriental studies the spirit of historical and literary criticism, the importance of which has not always been appreciated by purely indigenous scholars. Great results have already been accomplished in more than one direction by the co-operation of eastern and western scholars, and we

anticipate even greater results from such co-operation in the future. It is, therefore, our earnest wish that the intellectual bond between our Universities and those not of Germany only but of all the great countries of the West should become stronger and closer. Learned institutions have a special call to foster friendly international relations. In the sphere of intellect and spirit, in the fields of learning and research, there is room for all. Whatever one nation gains, it may at once unreservedly share with all others, without fear that it would grow poorer thereby but rather with full confidence that the more freely it gives, the more abundantly will it enrich itself.

We recognise, My Lord, in the illustrious Crown Prince of Germany and Prussia the scion of a Royal House, the Princes of which have for centuries proved themselves far-sighted and sympathetic patrons of learning and research, of literature and art. We may be permitted to express the hope that his temporary sojourn in the East, while it will heighten his general interest in eastern countries and affairs, will also strengthen his sympathy with those oriental and particularly Indian studies, in the cause of which his learned countrymen have done work so splendid and so gratefully recognised by us. We venture respectfully to charge His Imperial Highness

with a message of good will from us to the great German nation and more particularly to the great German Universities and their learned men : and we may, perhaps, be finally allowed to express a hope that the Prince, when parting from our shores, will carry away the impression that he has been staying a while in the midst of a community which is on the upward move ; that the Indian people fully recognise and are resolved to take advantage of the immense opportunities for progress which they enjoy under the sway of wise and benevolent rulers, guaranteeing external security and internal order ; and that it is their ambition not only to advance in material prosperity but also to qualify themselves to take an important part, not all unworthy of their ancient traditions, in that great intellectual and spiritual competition through which mankind may hope gradually to accomplish its high ideal purposes, a competition in which all peoples of the earth may peacefully join, rivals and brothers at the same time.

UNIVERSITY CONVOCATION.

16th March 1912.

Your Excellency, Ladies and Gentlemen,

During the last five years, in the course of the successive addresses which it has been my privilege to deliver from this place, I endeavoured, following in the path of my distinguished predecessors, to trace from year to year the history of the progress of our academic life, and to dwell on such special features as called for criticism or reflection ; but, on the present occasion, I shall venture to depart from the established course. We have now reached one of the most critical periods in the history of our growth, and changes are impending, are in fact partly in process of accomplishment, which are likely to affect with very special force the University of Calcutta. On such an occasion as this, it is our duty to realise, as accurately as we can, the scope of our present activities, and the direction in which future development may be most profitably attempted.

The far-sighted statesmen, who assisted in the foundation of the Indian Universities, now nearly sixty years ago, aimed at the establishment of Institutions for the purpose of ascertaining by means of examinations the proficiency of candidates and of rewarding them by

academic Degrees as evidence of their attainments. But though they thus intended the Universities to be examining bodies, they recognised at the same time a principle of vital importance, calculated in the fulness of time to transform these Institutions into teaching Universities, I refer to the fundamental principle that no student shall be admitted as a candidate for a Degree unless he has been duly trained and instructed in an affiliated College. The more intimate the relation between the University and the Colleges, the closer the supervision exercised by the former, the stricter the adherence of the latter to the academic Regulations, the more unquestionable is the truth of the statement that the Colleges constitute an integral, an essential component of the University. From this point of view, it is fairly obvious to any unbiassed mind that the reproach, sometimes levelled against the existing Universities, that they are merely examining bodies and consequently educational agencies of an inferior type, does not rest on a solid foundation. The criticism is founded on an incomplete and insufficient analysis of the present condition of things. The truth is that the University delegates the function of teaching to a number of Colleges, the totality of which practically constitute the University in its teaching aspect. The professors of

affiliated Colleges are thus virtually Members of the University—and truly not the least important members—although many of them may not formally be Fellows. This state of things is bound to continue, unless the Universities should altogether divest themselves of the functions of controlling higher education as represented by the Intermediate and B.A. stages of study and of influencing secondary education by means of the Matriculation Examination, and should instead limit themselves exclusively to the promotion of higher studies in their most advanced stages. Let us suppose for a moment that the territorial sphere of this University were reduced to a few divisions or even to the city of Calcutta only. Even then the University would have to teach by delegation, that is, by entrusting the function of giving instruction to such Colleges as are willing to accept the Regulations and submit to the Examinations of the University. If it really was desired that Universities should be directly teaching bodies—the sphere of teaching remaining the same as now—either of two very radical plans would have to be adopted. The University might, in the first place, dispense with all the existing Colleges and itself provide teachers and professors in sufficient numbers to teach all students who wish to proceed to the Intermediate

and B.A. Examinations; or, in the second place, each existing College might be raised to the rank of an independent University. I shall not pause to consider the feasibility or the advisability of either of these schemes. The observations I have made, if duly considered, further justify the inference that the criticism directed against the existing Universities that they are not residential in character is very wide of the mark. A University which has to rely upon the Colleges affiliated to it or incorporated within it, for the instruction of its students, has in the same way to look to the Colleges for suitable arrangements for their residence and supervision. That these arrangements have up to the present been in most places lamentably defective does not change the general position. Satisfactory improvement in this line can be effected in no other way than through the agency of the Colleges. The University can do no more than keep the Colleges up to the mark and insist on every possible reform to provide students with sanitary and convenient quarters and to arrange for fully effective supervision. Theoretically, no doubt, we might imagine the University, let us say the University of Calcutta—we need not concern ourselves for the moment as to what the possibilities of Dacca, Benares or Aligarh may be—let us imagine this University congregating all the Intermediate

and B.A. students, who live at Calcutta, in one huge University hostel, and looking after them by means of University Superintendents and University Inspectors. But would any one seriously contemplate a centralising scheme of this character? We all know on what lines the Government, under the guidance of our watchful and sympathetic Chancellor who has fortunately for us fully realised the defects of the present boarding arrangements, are initiating improvements. Each College is encouraged and enabled by means of substantial grants from the State to improve its own hostels or to erect entirely new ones; and the intimate connection of the hostel with the College is one of the most essential and valuable features of the scheme. I do not follow out these points any further. What I have said suffices to make it plain that the University is and has ever been a teaching University--although like every other University which undertakes to control Intermediate and B.A. teaching for a wide circle of students, it has to do its teaching by delegation; it is further patent that it is a residential University in as much as it obliges the Colleges to which the teaching is entrusted, to make suitable arrangements for the residence of the students. That both the teaching in the Colleges and the residential arrangements are capable of very great development and

improvement, we do not deny. But I must emphatically decline to admit that the University has so far failed in any way to cope with the task, exceedingly heavy as no doubt it was and is, of making adequate provision for the entire body of students which stands under its jurisdiction. Our exertions have grown *pari passu* with the growth of our task, and our strength does not yet give any indication of exhaustion. We, indeed, may not have been in a position to satisfy all demands whatsoever—local, provincial, sectarian—which have been made upon us. But we do claim that substantial progress in every department has been made, within the limited means placed at our disposal, ever since the new Regulations came into force, and we maintain that, all further progress will have to be made mainly on the lines hitherto followed.

Do I then mean to say, I may be asked, that the old Universities, among them in the first place our own University, really do everything that may be expected from an Indian University, that no advance is to be made but on the customary lines, and that hence there is no force whatever in the demands of those who contemplate altogether new developments of University teaching, of academic life and activity? To this question I unhesitatingly reply that I am far from holding such a view.

On the contrary, I am convinced that what our Universities require is an essentially new start on paths untrodden hitherto, that a new spirit has to be evoked, that new forces and agencies have to be created. The country, I declare, is amply justified in demanding from our Universities a great deal more than they have accomplished hitherto, and the advocates of new schemes are in a certain sense right in maintaining that what we require are Universities teaching rather than examining ; but this sense has to be defined and circumscribed very clearly, if we desire to effect something really useful.

Our Universities have undoubtedly accomplished great things. Under their fostering care, there has grown up a numerous and important class of men imbued with the modern spirit, animated by progressive ideas, and possessing, each individual in his own sphere, some share of that knowledge and learning without which no man at the present time is able to take an effective part in the higher practical work of life. Although, perhaps, not very rapid, our progress in this direction has been steady and undeniable. We have learned, in ever increasing numbers, to realise and to act on the conditions on which alone in these times of ours a nation may exist and prosper. This I say is great work, and I do not hesitate to add, is after all that kind of work which modern

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Universities all over the world are called upon to undertake in the first place. It is well to remember that even Institutions such as the great Universities of Germany, which are so justly renowned as centres of learning and research, are primarily maintained by the State for the purpose of preparing young men for the higher walks of practical activity, the so-called learned professions. This is so, and it is right that it should be so, for action is after all the final end of life. But at the same time, it is a fact that the Universities of the West combine with this practical function, another function which, though by no means out of relation to practical life, yet has a prevaillingly theoretical aspect—a function which many would be inclined to view as the higher one and as to whose absolute importance and greatness there indeed can be no doubt. The professor in a Western University has a double task. He in the first place imparts to his pupils the best knowledge which is available in his special subject at the time—not indeed teaching merely from text books or as many an Indian College professor so often does, teaching a text book—but drawing on that entire stock of information, ever growing and ever shifting, which is supplied by periodicals, reviews, and transactions of learned societies. In the second place, he aims at stimulating in the minds of

students, or at any rate that minority of students who are specially gifted in that direction, the aspiration to go beyond what they have learned and to widen the realm of knowledge by original speculation and research of their own. In order to impart to his teaching this stimulative and rousing power, the first requisite is that the professor himself should be capable of and actually engaged in original work ; (it is his example and life, no less than his verbal teaching, which excites the enthusiasm and stimulates the faculties of the pupils.) It is in this way that the Universities of the West are not only higher schools whose task it is to store the minds of students with ready-made knowledge, but also busy centres of productive intellectual labour, where new treasures of knowledge are constantly brought to light.

That our Indian Universities have so far failed conspicuously to come up to the standard of the Western Universities, as briefly outlined, cannot be doubted. To say that they have failed to do so is, perhaps, not a very accurate expression ; for one can hardly be said to fail in something at the accomplishment of which one has never aimed. But the fact remains the same. Our Universities have done teaching, even teaching of a high type ; but the teaching has not matured that particular precious fruit which University teaching in the West bears

in such increasing abundance. The Indian Universities have in fact contributed exceedingly little towards the advance and increase of knowledge. They may be said to have acted as faithful guardians of the sacred flame, but they have done nothing to make it burn brighter and higher so as to dispel in an ever widening circumference the darkness which surrounds human intelligence. In old days, India was one of the great centres of creative thought ; we remember this with pride and we draw from it inspiring hope for the future. But, at present, we have fallen woefully behind in the great intellectual competition of the nations of the world ; and those institutions on which there mainly devolves the task of promoting the intellectual re-birth and development of the country have never realised the full extent of their responsibilities. The time has come now thoroughly to diagnose this vital defect, and the result of the diagnosis requires to be declared in unambiguous terms by those to whom the guidance of the existing Universities is entrusted. Otherwise, it might happen that the older Universities, which in their sphere have laboured so long and so faithfully and have accomplished so much in their own lines, might suddenly find themselves outstripped and possibly left hopelessly behind by younger institutions less spell-bound by

tradition and routine and more fully alert to the signs of the times.

I in no way claim to be the first to whom this idea of the pressing need of a further step, a step forwards and upwards, to be taken by our University, has occurred. In fact, I could not speak with the confidence I actually feel, were I not conscious that the ideas and aspirations to which I am endeavouring to give utterance, are shared by many of my Indian countrymen, by many of my Fellow Citizens of Bengal, probably by more than one of the very Members of our University whom I see here around me. I rejoice in the thought that I am justified in claiming our learned Chancellor, as a sympathiser with the new aspirations; and to make on this point a statement final and crowning as it were, it is to me a source of the most intense satisfaction and pride that the special need of the Indian Universities, which I am now endeavouring to set forth, has been clearly discerned and emphatically stated by no less an authority than our wise and Gracious King-Emperor himself. For in His ever-memorable reply to the Address presented by our University—a reply which we have resolved to engrave on marble in letters of gold,—His Majesty declared that no University is now-a-days complete unless it is equipped with Teaching Faculties in all the more important branches

of the Sciences and the Arts, and unless it provides ample opportunities for Research.) This epoch-making utterance, indeed, expresses our main needs so clearly and precisely that it is sufficient for me to dilate on them and to some extent develop their implications.

The Faculties to which His Majesty alluded are plainly not Faculties whose main function it is to lay down courses of studies and syllabuses and to appoint text books. Bodies of this kind we have possessed since a long time, and they no doubt are highly useful in their own way and sphere. The new Faculties required, rather, are groups of University Professors, competent to impart instruction of the highest kind and themselves engaged in original investigation and research. It will be needful to define, to some extent, what particular shape such Faculties would have to assume in order to suit the exact requirements of one of the older Indian Universities, or let me rather say at once, of the University of Calcutta with which we are mainly concerned. Details cannot be discussed, much less settled, at the present moment, but it may be useful even now to assert certain general principles. For, as the realm of possibilities is wide, we shall have to realise at the outset that not everything that may be desirable can be accomplished at once; and, I specially wish

to add, it is essential that no initial misconception should be allowed to obstruct our course of action.

The old historical Faculties of Western Universities have all along been four—the Faculty of Theology, the Faculty of Jurisprudence, the Faculty of Medicine, and the Faculty of Philosophy, which latter Faculty has in modern times been split up in many places into two sections, a Faculty of Physical and Natural Science, and a Faculty of Philosophy comprising the remaining branches of knowledge which were represented by the old Faculty of Philosophy. The present Faculties of the Indian Universities are based on very much the same plan; the only essential difference is that they do not comprise a Faculty of Theology and have added Faculties of Engineering, while in the West the interests of Engineering are entrusted to special Institutions. We are not prepared at the present moment to propose the foundation of Professorships for the teaching of Theology. I must confess that personally I look upon the scheme of theological Faculties, which we understand is contemplated by the promoters of the Hindu and Mahomedan Universities, with very sincere sympathy. I am strongly convinced, I deeply feel, that the total divorce from religion which characterises our modern

system of higher education is nothing less than a great evil, I was about to say, a national calamity. But, at the same time, I cannot shut my eyes to the extraordinarily great difficulties of providing religious instruction in a University which is bound to be non-sectarian. The entire question of theological Faculties, urgent as I feel it to be, must be left to the future to settle. As to Law and Medicine, provision of new agencies for higher teaching has already been to some extent undertaken. In the department of Law, we have our own University Law College with a numerous and competent staff. The Institution, no doubt, aims, in a quite pre-eminent sense, to supply practical wants, to send forth young men fitted for the administration and practice of Law in all its different aspects. But we have obviously here the germs of an Institution, the Members of which may aim at the promotion of original work in the domain of the general principles and the history of Law and Legal Institutions. The object we have in view may undoubtedly be facilitated, if the conditions of the tenure of office of the Tagore Professor of Law are suitably modified and the funds placed at our disposal by one of the most enlightened and public spirited Indian Lawyers of the last century applied, under altered circumstances, to the maintenance of a true University Professor

of Law. Meanwhile, our hands have been strengthened by the foundation of a research prize in Law of a substantial amount by one of the wealthy citizens of Calcutta, and I welcome this as a significant indication of the fact that the claims of research are appreciated and acknowledged in wider circles than those purely academic. In the domain of Medicine, another of the great departments of knowledge which has a prevaillingly practical aspect, we have affiliated to us our splendid Medical College with its distinguished staff of Professors, many of whom have done highly important work of an original kind. That the opportunities which Calcutta affords for medical research admit of extension and improvement, in many and essential directions, must be readily acknowledged; and it is therefore a matter of the deepest gratification that our enlightened and benevolent Government, fully alive to its responsibilities in the matter, have just taken steps for the foundation of a School of Tropical Medicine.

There thus remain the two Faculties of Arts and Science—twin daughters of the old Faculty of Philosophy whose needs for extension have to be considered. It is here that in my opinion a start on new lines is most urgently required: it is at this point that we have to apply our first efforts to create a true teaching

University. The field is of enormous extent ; it comprises the whole circle of mental and moral, philological and historical science, and then again the entire ever-growing and multiplying group of the physical and natural sciences. That here there are infinite openings for true academic teaching and research cannot be seriously disputed.) We no doubt have had M.A. teaching, of a more or less adequate nature, in quite a number of these philosophical subjects for many years. But this M.A. teaching, except in a few notable instances, has not been essentially different either in spirit or in results from B.A. teaching. It has aimed at, and in a satisfactory degree, realised greater specialisation and thoroughness of study ; but it has not, on the whole, aimed at or achieved the advance of knowledge. A good Master of Arts is a young man who is well up in some special branch of knowledge and may be entrusted with teaching the same subject in one of our Colleges ; but he is nothing more, and the training he has received has not aimed at making him anything more. Nor again are our Colleges, as a rule, in a position or willing to devote much time or labour to M.A. teaching such as it is. The tradition that a good B.A. requires no teaching whatever to qualify for the M.A. Examination, although combated by our University, has still a great hold on the

minds of teachers as well as students. I see no definite chance of the accomplishment of a radical change in this respect in our Colleges: at any rate, as a mere preliminary, the condition of recruitment of M. A. teachers would have to be fundamentally altered. It, therefore, falls on the University to provide what is required. I am aware that the University—even if fully recognising what is needed and most anxious to supply the needs—is unable to establish at once anything like complete teaching Faculties for Arts and Sciences. A few words will suffice to indicate what I, and with me, I think, every one who has some insight into our needs and capabilities, would consider a bare minimum for the establishment of bodies of Professors that might be viewed as teaching Faculties. We should, in the first place, have not less than three Professors at any rate to represent, not indeed with full adequacy but not quite unworthily, a group of subjects hitherto neglected by our Universities in a somewhat unaccountable way—I mean the ancient history, antiquities, philology, literature, philosophy of our own mother country. We should require a Professor of Philosophy other than Indian. There further should be Professors for History other than Indian and for Comparative Philology. I do not refer to Economics, as a University

Professorship, associated with the honoured name of our late Chancellor, is already in existence. On the side of Science, we should *require at least two Professors for Mathematics in special view of its recent higher developments, a Professor for Chemistry, a Professor for Physics, and also special representatives of important branches in which so far we have not had regular M. A. teaching even, I mean Botany, Zoology, Physiology, Geology and Mineralogy.* This list of required Professorships is short, indeed, if we compare it with the long and imposing statements which show what is meant by a teaching Faculty of a European University, not necessarily one of the first rank, but even a minor one. At the same time, I am fully and regretfully aware that my list is long, if judged by the standard of our present capacities and possibilities. But there is no reason why we should not attempt to make an immediate beginning at any rate. Nay more than this, I rejoice that a beginning has actually been made, for not without encouragement and hopes of sympathetic response have the Senate quite recently approached the Government with the request for the foundation of two University Professorships, one, to be called the Regius Professorship in commemoration of the visit of our Gracious King-Emperor, for Indian History and Antiquities, these terms

to be taken in a comprehensive sense as implying the study of the intellectual History of Ancient India no less than the study of political and social events; and the other, a Professorship of Higher Mathematics to be associated with the name of our distinguished Chancellor, under whom we trust this great new movement will not only be initiated but further developed. This selection of two special branches of study from so many which, we may say, equally clamour for recognition, no doubt was a task, somewhat difficult and delicate, if not invidious. That India and its past should be among the very first subjects thought of was indeed almost inevitable; in making this choice, we discharge as it were a debt sacred and supreme from more than one point of view. For the selection of Mathematics, on the other hand, in preference to other branches of science, there may be pleaded, in the first place, the fundamental importance of this discipline which forms a kind of basis and supporting framework for every branch of Physical Science; and apart from this, the practical consideration, not without weight for those who wish to initiate a great movement with the least possible delay, that a Professor of Mathematics in even its higher developments does not require the preliminary establishment and constant upkeep of an expensive laboratory.

But far be it from me to suggest even that these two professorships are really more necessary than any of the others I have named ; necessary to us is nothing less than a full representation, by competent special research professors, of all those branches of higher knowledge in which Indian youths of exceptional ability may be expected to attain to that degree of true proficiency which naturally leads on to new enquiry and discovery. The two new professorships would be highly welcome on their own account, but even more welcome as implying a pledge and promise, as it were, of further developments of University teaching on the same lines. It will no doubt take time to build up a teaching University ; but let us at any rate not delay any longer to realise our wants clearly and to enounce them boldly and definitely.

That a scheme of the kind I have attempted to sketch in outline will give rise to reflections, queries, doubts and objections of many descriptions, I realise full well, and with reference to some of these, which I anticipate with special certainty, I may be allowed to make a few observations.

One of the first questions sure to be asked is, where the funds for a Teaching University are to come from and whether any funds that may be forthcoming in the immediate future

will suffice to attract to the Professorships contemplated, men really capable of raising University teaching and the results of such teaching to an unmistakably higher plane. We have proposed that to the two professorships to be founded at once, salaries of Rs. 12,000 a year should be attached. Doubts have been expressed already in more than one quarter whether a remuneration less than the average pay of a Principal of a Government College and less than half the salary of a Director of Public Instruction will attract men possessing those eminent special qualifications on which we shall be bound to insist in the case of our University Professors. To this, I would reply in the first place that the salaries proposed may be viewed as minimum and may have to be raised in the future, at least in special cases. But there are other considerations of a weighty character which cannot be completely ignored. The University Professorships which we contemplate will, to those ambitious to devote themselves to study and research, offer quite particular advantages. The routine duties such as lecturing will be light ; there will be the amplest leisure for literary or scientific research ; the position will be one of great eminence and dignity, to which fact, I confidently trust, it will be found feasible to grant some distinct official recognition not based on

the mere amount of salary. The great prizes in the way of income everywhere fall to those who attain high eminence in one of the distinctly practical walks of life: the more theoretically, or, if you like, ideally minded man who looks upon the investigation of truth as the main object of life, or at any rate of his life, will probably be prepared to make some sacrifice on the material side and will in many cases be content to do so. I am therefore by no means hopeless that men of the requisite type will be forthcoming, even now on the comparatively modest terms we may be able to offer. As to the question of the source of the funds required, it is evident that the University, which so far has no other income than the fees realised from candidates, cannot pay the salaries of University Professors from its own resources. We have every reason to hope that our application to the Government for the two initial Professorships will meet with a sympathetic response, and I venture to cherish the further hope that the scheme may expand and develop under the same aegis. The truth is that in all the civilised countries of the present age, higher scholarship and research and not only such research as may conduce to material prosperity and advancement, are allowed to have a distinct claim on help, in many cases very substantial help, from public

revenues ; the encouragement of learning and research are, indeed, looked upon as constituting one of the recognised duties of Government. Much the larger part of the expenditure of the great Universities of Germany is allowed as a direct charge on the public revenues, and charges of this kind there never meet with objection from the representatives of the people. But, apart from this, I must address a most earnest appeal to the wealthy aristocracy of our country, more particularly our province, not to withhold assistance from the great work we are about to initiate. I for my part very sincerely sympathise with the schemes of new Universities, Hindu or Mahomedan, and I wish them every success, if properly planned and constituted. But I must confess that it grievously distresses me to see that though from all sides munificent contributions are promised to the funds of Institutions, the future working of which has not yet been even definitely settled, appeals for existing Universities and Colleges meet with a very scanty response. The new Institutions may have claim to assistance, but who will deny that the old foundations have a prior and more solid claim. The University of Calcutta, no doubt, is far from perfect ; it requires to be improved and possibly even to be reformed in many ways ; but, be it kept in view, that essential improvements

and extensions, the need for which we have not failed to realise long ago, could not be taken in hand and accomplished for want of funds. But imperfect as it may be, Calcutta at any rate has existed and has laboured strenuously for a long series of years. The existence of the cultured classes in Bengal is due entirely to the action and influence of the University: it is this University that has roused in the people of the province, in fact far beyond the province, those very higher intellectual and spiritual needs and aspirations which are now attempted to be directed into new channels. Charity truly begins at home. Let us consider and provide for the wants of our great common mother before we proceed to lavish our substance upon newcomers.

The question next deserves consideration, as to the quarters in which we should have to look for men suitable for appointment as University Professors. It is beyond controversy that well-founded claims on the part of Indian scholars will certainly not be overlooked, and I for my part look forward to a time when we shall have a University professoriate largely composed of my countrymen, possibly of graduates of this very University. But at the present moment, as well as in the immediate future, our first endeavour must be to gain for our professorships the very best men available.

To aim at less would be to imperil, nay almost to a certainty to ruin the chances of our new scheme at the outset. I repeat that the new University teaching is not intended to be merely the customary M.A. teaching under another higher sounding name. It is to be teaching which deserves a higher name, because it is intrinsically of a higher character. We cannot, therefore, afford the patriotic luxury of restricting our selection to Indian scholars alone, but we naturally shall go no further afield than is necessary; yet it must be distinctly understood that we shall rigorously insist upon certain essential qualifications. Eligible as professors will be none but men who have done distinguished research work in some department of the subjects entrusted to their care, and who are capable vitally to assist their students by guiding them to the most recent sources of information wherever available and suggesting to them new likely topics for original investigation.) I frankly confess that if we should be so unfortunate as not to succeed in our effort to secure so much, the new scheme must be abandoned. Let us fully realise that in initiating this great new experiment, we shall be observed and criticised; we shall have upon us the watchful eyes of the Government whom we expect to help us with funds, and the no less watchful eyes of the

learned world which naturally will be sympathetic towards an important new movement professing to promote the interests of scholarship and research, but whose attitude I am sure will be critical no less than benevolent. Here as everywhere the first steps are the most difficult and momentous, and whether further professorships should be founded in the future, will no doubt depend to a large extent on the nature of the work accomplished within the next few years by the two professors first appointed.

I can make a passing allusion only to the possible objection that the scheme of higher teaching outlined by me is premature. Some enthusiasts may be inclined to urge on this occasion also the so-called paramount claims of adequate provision for universal primary education before any increase of expenditure on higher education and research. To them would I only reply that if higher teaching has to wait for admittedly needful development until a fully satisfactory scheme of general primary education is established through the whole length and breadth of the land, the day for these higher developments will never come. The two demands stand on entirely different planes, and history teaches very clearly that in all the great seats of culture and civilisation, learning, speculation and research of the highest

type have developed and benefited the world, independently of any general system of primary education. (Even from the narrow point of view of material prosperity, the active and liberal promotion of learning and research is at least as important as arrangements under which every tiller of the soil and every mechanic labourer may learn to sign his name and read a newspaper.) Even less am I prepared to listen to the warning voice of those who often in the interest of secondary education declare that no higher developments of M.A. teaching will be profitable until the preparatory secondary schools have been placed on a perfect footing. Why—to mention a specially striking illustration—is the teaching of Indian History, in our schools, more particularly in the earlier periods, so lamentably defective and barren,—mainly because the so called teachers of history never themselves have had any proper training in the subject; no such teaching has anywhere been provided by Colleges and Universities. Instruction based on a few text-books given by teachers who never enjoyed an opportunity of hearing and learning more than those text-books contained, has been the bane of our secondary schools. Nor would I tolerate for a moment the assertion that our College students, even the best of them, are not yet ripe for higher teaching and

research. Truly, this cannot be accepted as the result of more than half a century of B.A. and M.A. teaching. The fact rather is that our higher College Classes contain a number of young men, willing and prepared to carry on studies into the highest spheres, if only they can count on guidance and opportunities. Even now the University every year receives theses and essays written with a view to Doctor's Degrees and research prizes and scholarships which give ample evidence that ability, nay distinguished ability, is by no means rare among our advanced students. In the opinion of those appointed to judge the theses, what is evidently wanting is the advice and guidance of fully qualified special professors, and this stimulating factor it is more than the paramount duty of the University to supply.

Gentlemen, at the beginning of my speech I referred to a kind of crisis in the affairs of our University. We are all conscious, conscious not without deep regret, that this crisis is indeed not confined to the academic precincts. Great changes are accomplishing themselves which affect the life of our whole province. Bengal has been for more than a century the leading province of India; Calcutta has been the Capital, in name no less than in fact, of a great empire; and now these high distinctions are all at once passing away from

us. Calcutta, Bengal, are discredited and cannot help feeling desolate. The gloom of grievous bereavement lies heavy on our minds; we feel like men who have "fallen from their high estate." The changes which we somehow cannot help deploring, may indeed ultimately be fraught with good to the general, in fact we hope and trust that this will be so; but this reflection on the good of the whole naturally is but cold comfort to that part which is called upon to pay the price. Our University—to return to what concerns us most nearly—loses the distinction it has enjoyed for so long a time as the University of the Capital City of India. We only trust that the privilege to have our Gracious Viceroy as the Chancellor of our University will be preserved to us. But in any case he will no longer reside in our midst, and highly-prized opportunities of confiding to him direct our needs and wishes will be taken away from us. The University has in the past been indebted to its benevolent Chancellors for so much that we naturally view the possibility of severance, even the possibility of the weakening, of the customary bond, with distress and apprehension. In addition, as misfortune never comes single, it appears likely that before long the jurisdiction of the University may be contracted very considerably; and a large section of the members of the University apprehend

that this may mean to us loss of prestige (and such loss is no light matter), loss of influence, loss of income and with it loss of power to do good work. It is an irony of fate that all this happens to us just at a moment when we held ourselves justified in looking back with some pride and satisfaction on the work accomplished in the immediate past. I think we shall not lay ourselves open to the charge of undue arrogance if we claim that no other Indian University has laboured more strenuously and perseveringly, with greater good will and keener insight, than ours has done, to bring about all those urgent and weighty reforms in University life and administration, the need of which was emphasized in the Indian Universities Act and the Regulations founded thereon. That our labours have borne good fruit already and that a more abundant harvest may confidently be expected from them in the future, no fair-minded observer of our activities will deny. There is thus good reason to lament, nay to accuse untoward Fate when so much well-meant and well-spent effort is all at once requited by heavy loss, by what has been interpreted as undeserved humiliation by members of the University as also by a large section of our friends and well-wishers.

But far be it from me to maintain that this feeling of sorrow is to be our ultimate

feeling in the present circumstances. Far be it from me to allow that the note of these concluding remarks of mine should be one of un-availing regret. No, my friends,—Fellows of the University, Graduates, Undergraduates,—I call upon you all to meet the new situation in quite a different spirit, with clear eyes and hearts undismayed. Let us remember, to speak with the Greek hero in Tennyson, that “though much is taken, much abides.” There are precious things, indeed, which nothing can take away from us. Calcutta may cease to figure as the Capital of India; our University may in future be in name a provincial institution. But no political or administrative change, no new distribution and allotment of rank and designation and artificial spheres of influence, can deprive us of the proud consciousness that in the great intellectual and social revolution which at present is transforming and we trust re-generating India, Bengal has ever been one of the foremost leaders, *the* foremost leader I make bold to say. No section of the Indian population has striven more earnestly and enthusiastically to assimilate and make their own all the blessings of modern culture, science, and enlightenment; none have shown themselves more ready and apt to qualify as worthy citizens of a truly modern and progressive common-wealth; and the leader and main

agent in this upward movement has ever been the University of Calcutta. We have honestly striven to maintain high standards and ideals; we have never been slow to acknowledge new duties and to satisfy new demands springing from the needs of advancing time. Nor have these earnest endeavours been without their share of reward; the name of our University stands high, our Degrees are esteemed and coveted on all sides. The seat of Imperial Government may be moved away from us; districts and provinces may slip away from our outward grasp. But after all, again to speak with Ulysses, "that which we are, we are." Nor do I wish these somewhat proudly sounding words to be understood as implying anything like undue self-congratulation on the present condition of the University. The greater part of my address to-day has, in fact, been devoted to the task of impressing on your minds the urgent need and explaining the details of a great effort to be made towards the advance of higher teaching; this need appears to me so very pressing, and as far as I can judge, so imperfectly understood as yet in many quarters, that I felt bound to emphasise it beyond all other needs. But there are many other wants that cry out to be satisfied. (A University is a great living organism; allow me to compare it to a mighty forest tree. The most

conspicuous and impressive manifestation of the life of the tree, no doubt, is its steady growth upwards, the building up, higher and higher, of a mighty dome or crown of dense foliage, unfolding its glory under the beneficent rays of the sun and the caresses of the breeze. But, all the time, vital operations, no less wonderful and necessary, although less noticed by the eye, are steadily in progress through the entire mighty organism; the unseen roots expand and toughen and pierce deeper and deeper; the stem clothes itself with ever succeeding layers of strong woody fibre; each branch becomes more solid and sends forth new twigs and shoots. ✓ All these functions and operations have their counterpart in the organism of a University; but what Nature does for the tree without thought and effort, we on our part have to effect and provide by careful forethought and toilsome labour. (The crown of our tree is teaching of the highest kind and research; our roots and stem and solid branches are our Schools and Colleges; and who would disown the manifold tasks and problems which the future of our Schools and Colleges suggest.) Let me just allude to two only—the question of the further development of the residential system and the problem, so often raised and so often set aside again, of some definite movement for the moral and religious training of our

youth. These and similar questions, indeed, call for intensified, for redoubled activity. Let us then concentrate our thoughts on the various great tasks before us, and draw from the idea of duties and calls upon us, the strength required to overcome the regrets to which the past and the present may give rise. The past and the present are not, indeed, relevant and significant in the deepest sense; truly relevant is the Future alone—that state of things which we are called upon to create by setting before us ideals and striving to realise them. The true realities, as a great philosopher has said, are not the things such as they are, but the things as they ought to be. In spite of seemingly adverse circumstances, it still lies with us not only to maintain the high position of our University, but even to raise it to a higher plane, to bring it nearer to that University which is the ideal, and, therefore, the truly real one. Whatever the present and the past may be and have been, the future belongs to him who wisely plans and resolutely acts. Our great King-Emperor has told us that Hope is henceforth to be the watch-word of India. We joyfully accept this watch-word. But let us keep in mind that hope is unavailing unless it succeeds in inspiring and stimulating resolve and action. Our task is clear—we have to render perfect in every detail and largely to extend in one

particular direction the activity of our University, so as to heighten its usefulness and maintain its pre-eminence. To effect this, let us dismiss all self-seeking and petty jealousies and mutual distrust; let us combine in well considered action and be prepared to make whatever sacrifices may be required; all this is possible to those that are animated by sincere good will. Let us only be true to ourselves, and there will be no danger of our University forfeiting a claim which it has acquired by noble work in the past—the claim to be designated “Prima in Indis.”

UNIVERSITY CONVOCAATION.

25th January, 1913.

Your Excellency,

Our University has, on more than one previous occasion, availed itself of the highly-valued privilege of conferring Degrees Honoris Causa on persons distinguished in various walks of life, and the beadroll of our Honorary Doctors is graced by more than one eminent name. But I must confess that it is with quite a special satisfaction that I, as the spokesman of the Senate, to-day request Your Excellency, as Rector of the University, to create three new Doctors Honoris Causa; for it appears to me that the triad of recipients proposed constitutes, if I may say so, a constellation of quite unusual brilliancy, shedding upon our University rays peculiarly auspicious and beneficent. I may be allowed to justify this impression of mine with a few remarks.

Hardly two years have elapsed since the time when we had the high privilege of admitting into the ranks of our Honorary Doctors, His Imperial and Royal Highness the Crown Prince of the German Empire and of Prussia. We, at the time, rejoiced in the idea of honouring, to the best of our power, a Prince

who represented to us a Royal House closely connected by ties of blood with the Royal House of Great Britain, and a friendly nation which stands in the foremost ranks of the great progressive nations of the world. But what gave a peculiar additional zest to our joy was the consciousness that in the country the Prince represented, the Universities and learned men have made inestimable contributions towards the knowledge of matters in which we naturally take the deepest interest—I mean the history and antiquities, the literature and languages, the philosophy and science of our own beloved motherland. To-day, great good fortune enables us to give expression to our gratitude for what learned Germany has done for us, in an even more direct way; for we have the opportunity to associate with us, by a Degree Honoris Causa, Dr. Hermann Oldenberg, Professor of Sanskrit in the University of Göttingen.

The study of Sanskrit in Germany already has a history extending over a century, and it has passed through several successive stages, each of which has its distinctive character. In the early part of the last century, we meet with a group of men of the highest eminence, who acted as the Pioneers of the new movement—among them the great twin brothers, Friedrich and August Wilhelm

Schlegel, and Francis Bopp, who on the basis of a sound knowledge of Sanskrit erected the imposing structure of Comparative Philology. Towards the middle of the century, the attention of German Scholars began to be attracted, in an ever-increasing degree, towards the oldest monument of Indian Literature and Religion, the sacred Vedas, and there came forward a brilliant band of scholars who, without neglecting Sanskrit Literature in general, yet made the investigation of the Vedas the main work of their lives, and thus laid the foundations for a true historical understanding of things Indian. These scholars, again, have been succeeded by what I may call the third generation of German Indianists, whose activity it is more difficult to characterise in concise terms, for the reason that it has rapidly extended itself over the whole field of Indian Research,—all periods of Indian History, all stages of Indian Linguistic development, all phases of Indian religious belief, all branches of Indian Literature, Philosophy, and Science. Of this generation, Professor Hermann Oldenberg is, as the world knows, one of the most eminent representatives. His outlook on Indian things is wide, and his numerous works and papers connect themselves with many lines of Indian research; but there are two important departments—each, indeed, by itself constituting a

little world—in which he has been most successfully and brilliantly active—Vedic Research and Research in the History and Doctrine of Buddhism.

In Vedic Research, Professor Oldenberg is one of the few who in the present generation have carried on the great German tradition. The task of the Vedic Investigator of the present day is, in several respects, a much more arduous, and, perhaps, a less grateful one than that of his predecessors, the great pioneers in that field. The days have gone by when discoveries in that field were somewhat easy, when the western scholar who for the first time studied and roughly understood a Vedic text was at once in a position to lay before the learned world masses of new, important and often startling facts. On the Vedic scholar of our time, there falls the duty to define more accurately and not infrequently to correct the outlines drawn by his predecessors with bold, perhaps, over-bold hand. Upon him is cast the burden of limiting sweeping generalisations, and, perhaps, reproving the premature enthusiasm of first discoverers, of tracing more hidden connections, of distinguishing finer shades and nuances of thought and phrase, of applying more delicate critical tests. Work of this kind demands great critical acumen and tact, great sobriety and fairness of judgment, infinite labour and

industry, and, very often, a good deal of self-abnegation. To all these demands, Professor Oldenberg has responded in the fullest measure. He has applied himself to his task, fully equipped with all that abundant new apparatus which is put at the disposal of the modern Vedic investigator by the enormous advances made in recent times by Comparative Philology and the Comparative Study of Religions and Mythologies as well as by the sciences of Anthropology and Ethnology. He has evinced an indefatigable capacity for the study of details, but he has never lost sight of the great end at which all historical and philological research should aim—to throw light on the evolution of the human mind. Gifted and equipped in this way, he has given to the world works, dealing with Vedic exegesis and criticism and with Vedic Religion and Mythology, which we may designate as the ripest fruit of western critical and truly philosophical Research in the field of Vedic Antiquities.

Professor Oldenberg's works in the field of Buddhism are distinguished by the same characteristics and are even more widely known. In Buddhistic Research, Germany cannot, indeed, claim the same unique position as it holds in Vedic learning ; but it may be said with confidence that none of the living authorities on Buddhism is superior to Dr. Oldenberg.

His well-known book on the Life and Teaching of Buddha presents a wonderful combination of historic and critical spirit, of sympathetic insight into past phases of doctrine and belief, and, in addition, of high literary art. This latter gift is the one among Professor Oldenberg's many gifts which cannot fail to strike even the less learned outsider, and, thanks to it, an interest in the great evolution and the momentous peripeties of Indian thought has been roused in unexpectedly wide circles. In conferring on Professor Oldenberg the Degree of Doctor of Literature, we are pleased to think that the designation, in a faint way, does justice both to the substance of his researches and to the art and grace of his literary style.

In Dr. Andrew Russell Forsyth, we welcome one of the most eminent living representatives of that splendid succession of Mathematicians, who have made the name of Cambridge justly renowned throughout the length and breadth of the civilised world. With Cambridge and its great teachers, India, indeed, may claim to be connected by specially close ties; for, there is no other European University to which the students of this country have resorted in larger numbers, and, even here, the names of the great Cambridge Mathematicians and Physicists are household words, as it were, amongst all cultured persons interested

in the progress of higher education and the spread of scientific ideas amongst our people. It is superfluous to appraise in minute detail the scientific work of a mathematician, who was for many years a brilliant occupant of the Sadlerian Chair of Pure Mathematics in the University of Cambridge and fully sustained the tradition created by his illustrious predecessor, Arthur Cayley, one of the greatest mathematical geniuses of the nineteenth century. Dr. Forsyth had quite early laid the foundation for his future fame by his remarkable treatise on Differential Equations which, on its first appearance, was publicly hailed by James Joseph Sylvester, one of the acutest mathematicians of the last century, as the best written mathematical book extant in the English language,—a judgment by no means too partial and fully confirmed by the significant fact that, in its German and Italian versions, it is recognised as the leading text-book on the subject throughout the Continent. The other work of his, which is equally a universal favourite, is the truly monumental treatise on the Theory of Functions of a Complex Variable, which revealed for the first time to the English-speaking mathematical world the subtle charms of the advances made by the greatest mathematical intellects of the age in the fruitful domain of modern analysis.

The first quarter of the nineteenth century had witnessed the establishment of the Theory of Functions on a secure foundation by the publication of the great memoir on Integrals taken between imaginary limits by Augustine Cauchy. The second half of the century had witnessed the great impetus given to enquiry, in the new field thus annexed, by the fascinating method developed by Riemann in his epoch-making memoirs on the Theory of Functions of a Complex Variable and the Theory of the Abelian Functions. An essentially distinct point of departure was subsequently discovered and elaborated by Weierstrass, with the consequence that in the closing years of the last century, there lay open before the mathematical student a remarkable new field of investigation in the highest branches of analysis. To co-ordinate and marshall these theories, and to illuminate each by the others, was reserved for Dr. Forsyth, whose work on the Theory of Functions exhibits great creativeness of thought and has naturally become the starting point for fresh investigations. His work on the Theory of Differential Equations embodies original investigation of the highest order and is responsible for a newly awakened interest in one of the most captivating departments of higher Mathematics. It may truly be said without exaggeration that this extensive work

has helped to remove essential difficulties and has rendered substantial progress possible in paths of knowledge that will be trodden by investigators in days yet to come. Then, again, his illuminating lectures on the Differential Geometry of Curves and Surfaces, recently published, furnish ample material calculated to stimulate the eager and ambitious student in the pursuit of knowledge in an attractive and ever-widening field of mathematical investigation. Finally, the series of brilliant lectures on the Theory of Functions of two or more Complex Variables, which Dr. Forsyth has just commenced to deliver at this University, will enable us to penetrate into unexplored territory, rich with possibilities of boundless investigation and speculation. If it were possible to characterise completely in concise terms work so varied and so abstruse, I should lay stress not merely on his wonderful mastery of mathematical analysis but also his intuitive insight into the true geometrical significance of the most complicated mathematical processes. It will be readily understood, I presume, why I do not enter into further details. Higher Mathematics unfortunately is a sealed book to most people, and hence any further attempt on my part to render the exceptional merits of Dr. Forsyth's work clear to the present audience, would

probably not be crowned with success. The comparative brevity of my remarks, indeed, is an indirect homage to the extraordinary profundity of his researches. The universal regard in which his work is held in every centre of mathematical learning is indicated to some extent by the circumstance that the Honorary Degree of Doctor of Science has been conferred upon him by the Universities of Oxford, Dublin, Manchester and Liverpool, the Honorary Degree of Doctor of Law by the Universities of Glasgow and Aberdeen, and the Honorary Degree of Doctor of Mathematics by the University of Christiania. I keenly regret that to him who is adorned by so many Honorary Degrees, our University is not able to offer a new denomination of Degree; we can do no more than ask him to permit us to raise the index of his Degree of Doctor of Science by a simple unit.

There now remains the third recommendation in the line of Honorary Degrees made by the Senate. I request Your Excellency to confer the Degree of Doctor of Law *Honoris Causa* on Sir Taraknath Palit, who, to our infinite regret and disappointment, is unable, by reason of the infirmities of age, to attend here this afternoon and receive our enthusiastic ovation. We, no doubt, have every reason to congratulate ourselves on the opportunity

offorded to us to do honour, as far as lies in our power, to men so highly distinguished in the fields of learning and research as Dr. Forsyth and Dr. Oldenberg. But it is not the first time that eminent scholars and investigators have joined the ranks of our Honorary Doctors. On the other hand, the circumstances under which an Honorary Degree is now recommended for Sir Taraknath Palit are absolutely unique in the history of our University. He stands before us in a double character,—in the first place, as an eminent and learned lawyer, and, in the second place, as a benefactor of our University on a scale hitherto unparalleled. He challenges our admiration and awakens our desire to do him honour on both these grounds. But like every body else in this world, we University people are rather inclined to be selfish, and I think I may safely say that on the present occasion it is Sir Taraknath Palit the great benefactor and not so much Sir Taraknath Palit the eminent lawyer who is foremost in our thoughts. To the benefactor we cannot indeed be grateful enough. That learning and research may grow and flourish, no doubt, has for its very first condition that men of eminent intellectual qualifications should be forthcoming in sufficient numbers, willing to devote their lives to the acquisition and promotion of knowledge. But a second factor,

equally, if not more important, is requisite. In this sublunary sphere, a material basis is required for all intellectual and even spiritual efforts, which the scholar and investigator are not, as a rule, in a position to provide for themselves; they, in fact, in all ages and in every clime, have had to look for and depend upon external support and patronage. In olden days, it was rulers and princes mainly, who gave the requisite help, and the intimate relation, then prevalent between learning and religion, enabled certain members of the community—such as the monks in mediæval Europe and the Brahmans* at all times in India—to devote to the pursuit of knowledge that leisure which they enjoyed as men invested with a sacred character. Under the altered conditions of modern life, the State has become the patron and promoter of learning and research. This, indeed, is one of the functions of the Government which is acknowledged as a matter of course in all the truly progressive countries of the modern world. That an institution such as a University should pay its own way, is an assertion which we sometimes hear made in this country, but which in any of the great progressive countries of the West would be received with blank astonishment. At the same time, it is realised in some degree everywhere that, in view of the more material, and,

hence, in a way more urgent needs of nations which have to be met from public revenues, the burden of satisfying higher ideal wants should not be allowed to rest altogether on the shoulders of the State. This view, in certain Western countries, at any rate, has gained strength from the fact that under modern social and economic conditions, wealth is tending to amass itself in the hands of individuals in enormous amounts—amounts so excessive, indeed, that they clamour as it were to be set free again and employed for the benefit of the community. Accordingly, we constantly hear of large endowments for public purposes made in Europe as well as in America by wealthy individuals, and among these endowments, many specially devoted to the encouragement of Research. We here in India naturally look for assistance to Government in the first place; without help from that quarter we should be in an evil plight indeed. Such help, I am glad to say, has not so far been denied to us; we are in receipt of liberal grants, and we confidently look forward to more liberal help in the near future. Nor has private munificence been altogether absent in the history of our University. We have possessed, since a long time, the endowment of Prasanna-kumar Tagore, which enables us to maintain what in a way amounts to a Professorship of

Law, and the foundation of the Premchand Roychand Studentships has stimulated and encouraged research on the part of our students. But these endowments were made more than forty years ago, and, no contribution of equal importance has been made to our funds from private sources in recent years with the exception of the handsome gift of Guruprasanna Ghosh which is applied to train our students in Western science in a foreign country, and the splendid donation of the Maharaja of Darbhanga which has enabled us to erect a fine Library Building. At the same time, our requirements at the present moment are many and urgent, for we have high aims and far-reaching aspirations. The time manifestly is ripe for display of private munificence on an extensive scale, and to our great good fortune, there is amongst us, at any rate, one man who fully understands the signs of the time. At the termination of a long and laborious professional career, and at a time of life when the responsibilities of a man are apt to press themselves on him with quite a peculiar force, Mr. Taraknath Palit—Sir Taraknath Palit as to our joy we are now able to call him—has taken counsel with himself and arrived at the conclusion that the very considerable wealth which had come to him as the legitimate reward of long-continued strenuous work,

could not be put to any better use than the promotion of scientific knowledge and research in the University with which he is himself connected by early ties. Once this conclusion had been reached, he decided to give us, with a more than princely liberality, not a fraction or part only of his wealth—he has freely given us the whole. We cannot be sufficiently grateful to him for assistance so highly opportune and generous. We just now are endeavouring to create teaching Faculties; we clearly recognise our needs and think we understand what steps have to be taken to meet them; our only difficulty, the gravity of which cannot indeed be exaggerated, is the want of adequate funds. Now this magnificent gift of Sir Taraknath Palit at once enables us to create two further University Chairs—one for Chemistry, the other for Physical Science—and if we add to this the Chair for Higher Mathematics for which Government have consented to provide funds and which we have been allowed to associate with the name of our beloved Chancellor, Lord Hardinge, we have at any rate beginnings—beginnings more than rudimentary—of a true Faculty of Science. This beginning, indeed, requires to be followed up, and the succeeding steps may be harder to take than the first one. But we shall not lose courage and the splendid initiative taken by

Sir Taraknath Palit inspires us with the confidence that the spirit which prompts men to make great sacrifices for noble causes is not dead amongst us and that our wealthy men do not altogether fail to recognise what paramount claims to unstinted assistance learning and research have in any progressive community.

I have said enough, I think, to make it abundantly clear in what sense I remarked at the outset that the present occasion is more than usually auspicious; and I trust I may now be permitted to conclude with the utterance of a fervent double wish. May it be given to our University, in course of years yet unborn, to train under its auspices scholars and investigators worthy to have their names associated with those of Dr. Forsyth or Dr. Oldenberg; and may many a one among the great and rich people of our Province come to the conclusion that the noble and far-sighted munificence of Sir Taraknath Palit calls not only for admiration and applause but also for emulation!

UNIVERSITY CONVOCATION.

15th March, 1913.

Your Excellency, Ladies and Gentlemen,

My first words on this occasion must be expressive of the profound regret of all members of the University at the unavoidable absence of His Excellency the Chancellor. During the last twenty-five years, successive Annual Convocations, except in one solitary instance, have been regularly held under the presidency of our Chancellor; and we have been so accustomed to his presence at these ceremonial functions, that even under ordinary circumstances, we would miss him with the keenest and the most widespread disappointment. On the present occasion, however, the special reason for his absence serves immensely to intensify our grief. We all know that he would have been in our midst to encourage us by his kindly words, but for the dastardly outrage on his person,—a crime justly denounced as unsurpassed for its atrocity, which deeply stirred the minds of all ranks and sections of the Indian People, and evoked the indignation and abhorrence of men, women and children of all creeds and classes. What more striking and gratifying proof is needed of the genuine personal interest His

Excellency takes in our work, than the fact that even when prostrated by physical suffering, he expressed a strong desire to be in our midst, and he has been compelled with much reluctance and regret to abandon the idea, only upon the emphatic advice of his medical attendants. I will read to you the sympathetic message I have just received from him.

“Vice-Chancellor,

I deeply regret that my recent injuries forbid my presence as your Chancellor at to-day's Convocation, which it had been my earnest hope to attend, though I know that my place will be most happily filled by His Excellency Lord Carmichael. I wish all success to the Convocation, and it is my heart-felt prayer that the grants which my Government have been able to provide for the pursuit of higher studies and for other needs may further the work of the University. I rejoice to think that in pursuance of the wishes expressed by His Imperial Majesty the King-Emperor, it has been found possible to make a liberal provision this year also of some three and three-fourth crores of rupees for various kinds of educational institutions. I confidently hope that the Calcutta University will be conspicuous in inculcating an education moulded on broad and useful lines and in furthering the advancement of true learning. To the young men

who take their Degrees to-day, I tender my warm congratulations; the future of India is bound up with their own future; so let them go forth with ideals and high courage, and may happiness attend their future.

VICEROY."

Let us express our deepest gratitude to a wise and beneficent Providence that His Excellency has been so mercifully spared to us, and let us fervently hope that we may long continue to enjoy the high privilege and inestimable advantage of his guidance and advice.

During the last twelve months, the record of our academic work shows unabated progress. I deem myself particularly fortunate that, on this occasion, I am not called upon to deplore the death of any of our active workers, though we have been deprived, by retirement, of the services of two of our valued members, Dr. Phillot who was a tower of strength to us in the cause of the promotion of Arabic and Persian learning, and Mr. Justice Caspersz who took an unfailing interest in the reform of legal studies in this University. A well-deserved tribute, however, is due to the memory of three of our Honorary Fellows, who have recently passed away, full of years and honours. Mr. Umeschandra Dutta, a scion of a gifted family and an unassuming scholar of varied literary

culture, readily assisted, during many years, our Boards of Studies with his extensive and accurate knowledge of the Classical and Modern languages of Europe. Rai Kshetranath Chatterjee, Bahadur, had made his mark as an able and experienced Engineer, and his advice was eagerly sought and highly esteemed by the members of the Faculty to which he belonged. Rev. A. Paton Begg, one of our most careful and conscientious teachers and examiners, rendered valuable service as Principal of the London Missionary Society's Institution and ably sustained its reputation as a thoroughly efficient place of instruction. The names and services of these distinguished men, who worked strenuously for our advance in days now long past, will not be readily forgotten by generations to come, and their bright example will serve to stimulate the activity of many a toiler in the same field.

During the last year, our endeavours to develop the University as a teaching Institution have been successful beyond the expectation of our most enthusiastic friends. Since we last met in Convocation, five new Chairs have been created, two by the Government of India, two by the munificence of a private individual and one by the University itself. Of the first two, established with the aid of funds supplied by the Government of India, one we have been

graciously permitted by His Majesty the King-Emperor to associate with his revered name. The occupant of this Chair will devote himself to the advancement of philosophical knowledge, and, the first Professor nominated is one of the most erudite graduates of this University, Dr. Brajendranath Sil. The next Professorship, for which also the funds have been supplied by the Government of India, we have been permitted to associate with the name of our beloved Chancellor, and, a distinguished Frenchman, Dr. Frechet, Professor in the University of Poitiers, has been chosen as the first Hardinge Professor of Higher Mathematics in the University. The third Chair, which has been founded by the University, will be devoted to the fascinating subject of Ancient Indian History and Culture, and, we are peculiarly fortunate in that we have been able to secure the services of Dr. George Thibaut who stands in the foremost rank of scholars distinguished for strikingly original work in the field of Sanskritic studies. The fourth and fifth Chairs we have been able to establish by the princely munificence of Sir Taraknath Palit whose name will be handed down to posterity as the greatest benefactor of an Indian University. One of these Chairs will be devoted to Chemistry and the other of Physical Science ; but no appointments have yet been made, as

the problem of the establishment of a University Laboratory, which is now engrossing our attention, must first be satisfactorily solved. The three Professors already appointed will shortly enter upon the discharge of their duties ; but, meanwhile, we have been particularly fortunate in that we were able to secure as Readers two scholars of world-wide reputation. The last twelve months also have witnessed a marked and rapid development of Post-graduate teaching, which, it is confidently expected by all true friends of higher education in this country, will have the most far-reaching and beneficial results. We have now arranged for systematic courses of lectures for M.A. students in English, Sanskrit, Pali, Persian, Arabic, Comparative Philology, Philosophy, History, Economics and Pure Mathematics. It is a matter for the sincerest congratulation that we have an enthusiastic body of students, genuinely anxious to avail themselves of the facilities afforded by the institution of these lectures ; our classes are full ; indeed, in some subjects we have as many as a hundred students ; and there are ample indications already that next session there will be a large accession to the strength of these Post-graduate classes. I desire emphatically to repudiate the suggestion that the institution of these lectures implies undesirable competition between the University

best affiliated Colleges. We fully recognise the excellent work hitherto accomplished by some of our strongest institutions in the way of Post-graduate teaching, and we are justly proud of their achievements which have served to enhance our reputation. At the same time, we cannot fail to realise that there is a widespread demand for Post-graduate teaching, which cannot be adequately met by any affiliated Institution, however strongly staffed and well-equipped it may be, which has also to bear the heavy burden of under-graduate teaching of a large body of students. The development of Post-graduate teaching must consequently continue to engage our earnest attention for years to come, and, if the scheme, under proper guidance and control, succeeds as every well-wisher of the University trusts it will, we shall have justified our existence as an Institution whose proud motto is the **Advancement of Learning**, and, we shall also have effectively solved the question of an adequate supply of well-educated teachers, lecturers and professors for the numerous schools and colleges within our jurisdiction. The last twelve months have also witnessed the completion of the splendid building, which we owe primarily to the munificence of the Maharaja of Durbhanga; but before the lapse of the year,

we have made the unwelcome discovery that the new building is inadequate for our rapidly expanding needs; though we have been able to find accommodation for our growing Library, for our office with its increasing records, for our M.A. Classes and for the University Law College with its extensive Library, the need for additional accommodation is already keenly felt. During the last twelve months, also, the University has made rapid progress towards the erection of a hostel for the students of the University Law College, and we hope to have one hundred and fifty students in residence on the premises at the commencement of the next session. It is a matter of the deepest regret, however, that visible progress has not yet been effected in the erection of hostels for the other colleges in the city, and to all interested in the welfare of our students, it is still a matter of grave concern that they continue in many instances to live under very unfavourable conditions. I have no desire to minimise the practical difficulties in the way of the realisation of our ideal, but I do consider it a matter of vital importance that the obligations of the State in this respect should not be under-estimated. It would be a lamentable mistake to suppose that the foundation of new centres of intellectual activity was likely, in the near future, to reduce

materially the pressure on the great colleges of Calcutta and would on that account justify a less favourable treatment in their case. On the other hand, it is undeniable that vigorous and sustained effort must be made for the solution of the question of residence of the students of this great city. We thus see on all sides unmistakable signs of fresh life and activity. The number of the students who seek admission to our colleges has steadily increased, and, in fact, has strained to the utmost the capacity of the best and strongest of our institutions. The number of candidates at all our examinations has steadily grown. Our advanced students have exhibited a highly commendable desire to proceed to the highest degrees and have eagerly competed for the most valuable prizes awarded on the results of original research. The signs of development are evident on all sides; in the Faculties of Arts and Law, we have made ourselves directly responsible for the instruction of 1,800 Post-graduate students; the University has thus loyally and steadily endeavoured to advance the sacred cause entrusted to its care. But, notwithstanding the most vigorous efforts on the part of all concerned in the performance of this great and difficult task, doubts have been felt and sometimes expressed whether we are on the right path at all.

In the course of the last year, questions have been addressed to me more than once as to what was the 'policy' of the Calcutta University. The questioners, in some cases, were persons evidently animated by sympathy for our University and genuinely desirous to be informed as to the meaning and drift of the various measures taken by us; in other cases, the enquiry appeared to me—unless my ear was rather too sensitive—to have a kind of sarcastic subtone; and in other cases, again, the antagonistic feeling that prompted it could not be mistaken. However this may be, the question so directly asked is entirely fair and unobjectionable. Our friends are entitled to be enlightened as to the motives and purposes of the steps which they may not fully understand, and it is desirable that our enemies—if, indeed, there be any such persons—should be given no opportunity to misinterpret and misrepresent our doings. I, therefore, gladly avail myself of the present opportunity to give to the members and friends of our University here assembled a brief exposition of the meaning and aims of our activity.

To question the University or the Chairman of its Syndicate as to their policy, is really to do them an honour which they do not deserve. None can have a policy of their own, unless they be agents whose activity is largely

unrestricted, and thus depends on their own choice and judgement. Very few individuals or Corporations enjoy the privilege of shaping policies of their own. In the enormous majority of cases, action is very strictly limited and defined by Law, Custom, Precedent and Regulation. The agent has to move on lines which he has not laid down for himself, but which have been prescribed to him by higher authority. To those who come to me with enquiries as to the policy of the University, I am consequently accustomed to give in the first instance a reply of an exceedingly simple and bald character—so simple, indeed, that the questioner sometimes appears to be completely taken aback by it. I tell him, ‘kindly take the trouble to open the first part of the University Calendar and peruse with some attention the Indian Universities Act of 1904 and the University Regulations.’ The truth is that the great public and national interests which are committed to the care of the Indian Universities are precisely defined and carefully safeguarded by statutes and rules framed in accordance with them. None of the existing Universities is in a position to have a policy of its own. It can really do no more than endeavour to carry out what is implied in the University Regulations. In the performance of this task, an individual University may no

doubt give proof of more or less insight, evince more or less promptitude and energy, show itself more or less resourceful. Regulations naturally admit of some latitude of interpretation, and the agent who is called upon to act on them, will inevitably become responsible for much detail. But, as things stand, no Senate or Syndicate of an Indian University has any opportunity to be strikingly original and brilliant in its ideas and operations. The outlines and more than the outlines of its work are for the time being fixed unalterably.

The policy of the University of Calcutta, ever since the introduction of the new Regulations framed in agreement with the Indian Universities Act, has been to comply as far as feasible with the demands which the Regulations formulate. In the performance of this duty, we, perhaps, have not shown ourselves particularly clever and resourceful, and the result may not have come up to our own or the world's expectations ; but I feel convinced that no body, who scrutinizes, without bias or prejudice, the measures taken by us, will venture to deny that they have been prompted throughout by a loyal and dutiful spirit. We have striven to the best of our capacity to carry out a policy laid down for us by the highest authorities. Time and, I am afraid, the patience of my audience also, would

fail me, were I to attempt to prove this assertion by a minute analysis of the operations of the University during the last seven years ; a few very general indications must consequently suffice.

The first duty, which devolved on the University under the new order of things, was to overhaul the entire existing system of University education, and its preliminary stage, secondary education. To that end, it undertook, in the first place, no less a task than a searching enquiry into the condition of all the schools, seven hundred in number, in Bengal Proper, Western and Eastern, Behar, Orissa, Assam and Burma, which are recognised by the University, that is, enjoy the privilege, a highly prized privilege, to present candidates at the Matriculation Examination. With the friendly co-operation of the departments of Public Instruction, the University had each school submitted to a careful and detailed inspection, bearing on all essential points of school organisation, management and discipline. On each inspection, a full report was drawn up by the Inspector and carefully considered by the Syndicate, who then proceeded to pass orders on it, pointing out in detail what improvements and reforms the school concerned was expected to make in order to retain the privilege of recognition.

Human life essentially is toil and trouble, and as a rule it is not worthwhile to dwell on past exertions ; but, I think, we may recall, with quite a special satisfaction and pride, the enormous labour spent upon this extensive enquiry, all the more so, as persons closely in touch with the schools and competent to speak with authority from personal knowledge, are unanimous in their testimony as to the evident excellent results of our work. Next to this, there came a great task of a more strictly academical nature, and presenting much greater intrinsic difficulties, namely, the task of revising the extent of affiliation enjoyed by the Colleges, nearly sixty in number, under the jurisdiction of the University and scattered all over the country within its territorial limits. This work was undertaken by an Officer of the University, of high standing and educational attainments, specially appointed for the purpose ; with him there were associated in each instance one or more special Inspectors, selected with a view to the individual requirements of the case. The full and often highly interesting reports, drawn up by these Inspectors, give a vivid picture of the state of collegiate education under the University of Calcutta at the time when the Indian Universities Act came into operation. Each of these documents was

minutely scrutinized by the Syndicate, and on this basis the question of the standard and extent of affiliation which the College would be allowed to retain, was determined. Many of those here assembled will no doubt remember the nature of those proceedings, into the details of which fortunately I need not enter on the present occasion ; it may suffice to say that practically the Syndicate had to fight a kind of battle with each College, a battle often long-protracted and affording to the authorities of the College, splendid opportunities for the display of obstinate valour. When, as I am glad to state generally happened, the Syndicate had gained a complete victory or at any rate secured a satisfactory compromise, there remained another task, which often taxed our strength and skill to the very utmost—the task of convincing the Government that the recommendations we finally made as to the extent of affiliation were really in full accord with the qualifications and legitimate claims of each Institution. Here, again, I gladly drop details ; I only refer briefly to the result of all that toil and strife. There is not a College in our jurisdiction which has not since 1907 been moved to take extensive measures towards its general improvement—on all sides, teaching staffs have been strengthened, libraries have been replenished, laboratories have been erected

or newly equipped. In more than one case, an Institution has undergone a veritable re-birth. I do not overlook the fundamental fact that whatever improvements and reforms the University may urge and accomplish, a genuine increase of efficiency in a College ultimately depends entirely on the energy and good will of the authorities, the Governing Body and the staff; the University can do no more than superintend, control, admonish, urge, possibly even threaten. But on those lines, we claim to have done as much as is possible, and we are still engaged in the fulfilment of our task; there is not one of our weekly Syndicate meetings at which we do not deal, often at great length, with demands for extension of affiliation of Colleges and with ever so many reports on the condition of schools. I complete this rapid and necessarily highly incomplete sketch of such of our labours as may be termed reformatory or corrective, with just a reference to one more extremely onerous task which we, in obedience to the new Regulations, have taken upon ourselves, namely, the disposal of all those endless cases, in which students, who for some reason or other have fallen short of the prescribed attendance at lectures, claim to be admitted to University Examinations. This special task implies a very heavy addition to the work of the

Syndicate, but we carry it on steadily, knowing that thereby we powerfully check irregularities and strengthen the hands of Principals in their effort to maintain order and discipline. I may add, in conclusion of this part of my remarks, one word as to the reforms we have made in the teaching of law in this province. In no other department, has there been a change equally conspicuous and fundamental. Our present arrangements are not exactly ideal. I, for my part, foresee great possibilities of future developments in this field of our activities. But I feel sure that every one acquainted with our law teaching as it was five years ago and as it is now, will admit that a fairly ordered world has risen out of chaos.

The University work reviewed so far does not involve any essentially new departure: it may generally be characterised as reform of previously existing arrangements. Of quite a different kind are those measures of ours on which I now intend to dwell briefly.

I have often wondered that the principles laid down as to the functions of the University in the Indian Universities Act of 1904 have met with such scant recognition, I do not mean that most genuine form of recognition only, which expresses itself in practical measures, but also appreciation of a purely theoretical type. The Indian Universities Act was the

outcome of an extensive and searching enquiry into the higher educational needs of the country, and that enquiry itself had been due to the fact that the existence of such needs was felt widely and deeply. Even now, after the lapse of nine years, one may without hesitation affirm that the principles embodied in the Indian Universities Act very accurately represented the ideas held at that time by a considerable body of thoughtful men in this country as to what the Universities should do to meet those needs. While the original Act of Incorporation of this University had proclaimed that the University was established for the purpose of ascertaining by means of examinations, and of rewarding by the bestowal of Degrees, the persons who had acquired proficiency in different branches of Literature, Science and Arts, the Indian Universities Act of 1904 declares that the University shall be and shall be deemed to have been incorporated for the purpose of making provision for the instruction of students, with power to appoint University Professors and Lecturers and to erect and maintain University Libraries, Laboratories and Museums. There can be no doubt, however, that the framers of the Act of Incorporation of 1857 also intended the University to be an instrument towards the promotion of knowledge and learning, and regarded

examinations and Degrees as a part of the machinery only ; but, all the same, there is a world of difference between the points of view adopted by the two statutes respectively. The Act of Incorporation defines the University as a knowledge-testing and knowledge-rewarding Institution. The Indian Universities Act defines it as an agency meant to provide for the teaching of students, and, generally to promote study and research. The Act of Incorporation does not expressly refer to the question, by what means students are to become proficient in Arts and Sciences, although no doubt its framers tacitly pre-supposed the existence of teaching Colleges approved by the University. The Indian Universities Act, on the other hand, in the first place explicitly deals with affiliated Colleges which are thus recognised as teaching agencies under the University ; but, in the second place, most unmistakably emphasises the obligation of the University to impart instruction on its own account through its Lecturers and Professors. The statute does not state directly on what principles the work of teaching should be divided between the University and its affiliated Colleges ; but there can be no doubt that the Colleges are meant to be entrusted with teaching up to a certain stage, while all that lies beyond, all teaching of the most advanced type and all direct

efforts to encourage learning and research, are allotted to the University itself. I consider it advisable to recall these details to your minds ; for, there is good reason to suspect that a great deal of the opposition, active or passive, with which the operations of our University have met in recent years, is traceable to the fact that the essential features of the New University Policy as laid down in the Indian Universities Act of 1904 were curiously enough forgotten as soon as announced. The fact is that whatever steps other than those of a purely corrective character our University has taken in the course of the last seven years, have been singly and solely determined by the desire to carry out, as far as we could, the policy so clearly and unambiguously formulated in the Indian Universities Act. I will not enquire what other Universities have done in this direction, but for Calcutta I may claim with confidence that it has at any rate grasped the principles of the new policy and taken some steps to carry them out in practice. We have, in the first place, framed Regulations bearing on the appointment of University Lecturers, Readers and Professors. We have, in the second place, taking a wide survey of the existing conditions of higher teaching, proceeded to introduce as many actual improvements and to make as many actual advances as our limited means

permitted. The special conditions prevailing at Calcutta immediately suggested a plan which probably could not be carried out in any other Indian University. We have here a number of first grade Colleges, with many highly qualified teachers, but there are among them two only, where the staffs are strong enough to undertake Post-graduate work in some branches at least in addition to the undergraduate teaching. But each one of all these Colleges has at least some Professors whose attainments qualify them to take part in M.A. work; and the idea, therefore, occurred to us to combine all those teachers in groups, strong enough to undertake each of them M.A. teaching in a particular subject. This was done, and in addition we took the further important step to strengthen those groups of teachers by associating with them special University Lecturers, not attached to any College but lecturing to University students only and receiving remuneration from University funds. This combined plan has so far been eminently successful. The lectures are attended by a body of more than five hundred students, many of whom would have been inevitably excluded from all M.A. instruction if we had to rely on the Colleges alone. Our scheme of Post-graduate teaching, however, is still in its beginnings and may no doubt be more

thoroughly organised and effectively strengthened if additional funds were provided for the purpose.

With regard to special teaching of the most advanced type, we have since 1908 appointed a number of University Readers who have delivered courses of lectures in special subjects. Eight of these special courses have been actually delivered; four have been published and the others are in course of publication. Among these Readers, there have been men of the highest eminence: I need mention only the two last ones, whose services we were able to secure in the course of the present session—Dr. Forsyth who laid before his audience entirely novel results obtained by himself in an extremely difficult though interesting department of Pure Mathematics, and Dr. Oldenberg who gave a masterly sketch of the method employed and results obtained by European scholars in the domain of old Indian grammatical and mythological research. The stimulating effect of the presence and the teaching of such eminent men cannot be questioned, and we trust that the institution of Readers will in future be more widely developed. On the other hand, we are aware that it would be of even greater value to have, at our University, teachers of the highest type, either practically permanent, or, at any rate,

engaged for a number of years, so that continuity of teaching and influence might be secured. This is the reason why we are anxious to be placed in a position to appoint University Professors who may stay with us for lengthened periods, deliver lectures on a systematic plan, and remain in continuous contact with the best students in each department. The need of a body of such men—numerous enough to cover, as it were, not, indeed, the whole ground of higher learning and research, but a considerable section of it for the cultivation of which our University is already prepared—is obvious; but—I hardly need remind you of the financial difficulty! All the same, our efforts in this direction have been in a measure successful, and a hopeful beginning has been made, even within the last twelve months. This is an outline of what we so far have been able to accomplish in the line of higher true University teaching. Our policy herein has been the policy of the Indian Universities Act of 1904; that will continue to be our policy: we do not, at present at any rate, feel the need of a better policy. What we do feel we grievously need, is Funds, and again Funds; but we are not without hope that they will come to us in due season.

I trust I have said enough to indicate the general lines on which, if circumstances are

not adverse, we intend to move in the near future. We should be entitled to speak of a Teaching University on a modest scale, at any rate, if we were to possess a body of University Professors composed of at least one representative for each of all those branches of study which are contemplated in our present M.A. Courses—I do not mean, only those courses which are actually taught, but all those for which theoretical provision is made in our Regulations. There are, indeed, branches of higher knowledge each of which would require two representatives at least, as for instance, Mathematics and History. Our requirements in this respect have to some extent been already definitely formulated. As soon as our University Chairs are increased in number and they become fairly representative of different branches of learning, the University Professors should be appointed to form the future Teaching Faculties of the University. These Faculties might be constituted by teachers only, with the Professors as Members Ex-officio, invested possibly with the right to add to their numbers, in proportion which can hardly be defined at present, by co-optation from the ranks of the University Lecturers. Each Faculty—there would, in all probability, be two or at most three only for a long time to come—would determine the courses of Post-graduate study in the various branches within

its cognizance. The highest teaching in each branch would be undertaken by the special Professor, who would at the same time direct and superintend the work of the University Lecturers in his department. If this can be realised, our University may, within* a measurable time, possess groups of higher teachers whose position and functions would be in a fair degree at any rate analogous to those of the teachers in the famous Universities of the West. I naturally refrain from further details or from forecasts as to the ultimate possible development of the modest organisation I contemplate ; it will be wise, if for the present we confine ourselves to plans of work which appear to be actually attainable within a not too distant future.

There is one special point in connection with the University Professorships on which I claim your indulgence to dwell for a moment, and, thus to emphasise what I said last year on the subject. Some patriotic friends have told me very distinctly that these Professorships should as a matter of course all go to Indian scholars. My answer was and ever will be that these Professorships should as a matter of course go to the best qualified men whom we may be able to engage on the terms that it is in our power to offer. The principle of nationality is to be deprecated altogether in matters of higher learning and research, and

we here in India are truly not yet in a position to be more exclusive, chauvinistic in this respect than the great nations of the West. Even Germany, so rich in native talent, freely engages the services of learned men from other countries wherever the true interests of scholarship and research seem to demand it. Had I time, I could quote strings of instances to prove my assertion; I confine myself to one that happened to come to my knowledge the other day. Two new Chairs were recently established in German Universities for the Comparative Study of Religion; both these Professorships were entrusted to distinguished Scandinavians. I also claim to be a patriotic Indian, and I look forward to the time when, in the natural course of events, the appointment of a non-Indian Professor will be the exception rather than the rule. But we should simply retard the advent of that day if, instead of initially securing for our University the most qualified men available, whatever their nationality may be, we were to look upon each newly founded Chair as an opportunity to provide for one more Indian.

I have a suspicion that some of those critics and enquirers who appear to doubt whether the Calcutta University has a policy at all, possibly find fault, not so much with our general ideas and aims and the schemes

devised by us to carry them out, as with the character of our mode of procedure. I have, in fact, heard it asserted that however good our intentions may be, our methods sadly lack consistency and continuity; we are in substance charged with acting or at any rate appearing to act rather at random. The proper plan, these our advisers suggest, would be to work out first a complete scheme of University extension, as consistent and as logical as possible, and then to carry it out methodically, observing due sequence and order, and thus making it quite easy to any observer to follow and approve our proceedings. To such friendly advisers or critics, I can only reply that those responsible for the development of the University are not altogether unaware of what our procedure may leave to desire in point of regularity and consecutiveness. The fact is that we are not permitted to work under ideal conditions. Such conditions can no doubt be easily imagined. Let us conceive that some powerful magician were all at once to appear on the scene and address us somewhat as follows: "I know, my friends, that it is your great wish to establish a true model teaching residential University in or near Calcutta. Allow me to help you. Here I present you with an extensive plot of ground, well-watered and laid out in beautiful gardens and shady

groves. Observe, scattered all over the place those manifold groups of palatial buildings, fitted to serve as residences of Princes and of the Rulers of the land. All these I freely place at your disposal for the use of your Professors, Tutors and Students. Do not moreover be troubled about expenses. You have access to a gold mine from which you may draw half a million pounds a year, without apprehension that the source of supply will be exhausted. You will find in the treasury ten 'million pounds for initial expenses. Take possession of it all and prosper."—Let such an offer be made, and I promise you that we shall at once set to work vigorously, and methodically build up a perfect University; but, alas, such pleasant things do not happen, at least not at Calcutta. We are compelled to make the best of what we have—limited means, unfavourable surroundings, unsuitable buildings, intermittent opportunities. I will not complain, for, on the whole, we have so far not been unfortunate. But, how under the actual circumstances, I ask, should we have managed to proceed, otherwise than in fits and starts and in a kind of possibly fantastic zigzag line? For a building to house our University Library and the University Law College, we were indebted to the fortunate circumstance that six years ago our distinguished Honorary Fellow, the Maharaja of

Darbhanga, conceived the noble idea that he would apply a portion of his immense wealth to the substantial aid of the University of Calcutta, and, it was a still more fortunate accident that the University of Patna at that time did not exist even in the imaginations of people. That we have a University Chair of Economics is due to the recognition by Lord Minto of the special importance of the study of that science for India. Our present beloved Viceroy, Lord Hardinge, was moved, in an auspicious moment, to listen to an application for the foundation of Chairs of Mathematics and Philosophy. It was, again, a lucky accident, as far as we men can judge, that Sir Tarak Nath Palit, not many months ago, determined to devote his entire fortune to the promotion of scientific research in our University; and, finally, our students recently had the benefit of a course of stimulating lectures by Professor Oldenberg, because it so happened that this distinguished savant conceived the plan of a visit to India in the course of the last cold season. We are truly thankful for all these unexpected gifts, and, fervently hope that the long chapter of lucky accidents is not yet closed. But, I trust, it is evident, why, living and working under such conditions, we do not advance on entirely scientific lines. All we can promise to do is to make good and speedy use

of every opportunity to carry somewhat higher the stately building which we are engaged in rearing, even at the risk that the pile may continue, perhaps for a long time, to look odd and unsymmetrical. We cannot afford to stop and wait, until our means be sufficient to enable us to construct at once an entire new wing or a complete higher story. Any new chamber, any new annexe, which we may be able to afford, will be welcome and find its immediate use. Here also our policy is not chosen by us, it is determined for us by factors even more powerful than University Regulations, I mean, fixed antecedents and given conditions of existence and work.

I feel bound to touch upon another point before I conclude this Address. The critics whom so far I have endeavoured to satisfy, do not mean, if I understand them rightly, to oppose all progressive action on the part of the University—they admit the need for changes and developments, possibly even of a startling nature, but find fault with us on the ground that our plans are difficult to understand or are lacking in method. But there is another section of critics also, men who seem to look with disfavour upon all change, at least on all important change. We have often heard it asserted, in the course of the last year, that, after all there is no urgent reason to strike out

new lines in our activity, that Calcutta has done very well under the old system, and might with advantage be left to continue under it, and, that in any case, no further step should be taken without previous, long, and cautious deliberation; what they say, in substance, amounts to this, "Let things well alone." Re-actionary critics of this type I would meet with two weighty considerations. I am not, in the first place, prepared in any way to admit that those higher developments of University life and work towards which we are striving, are not really needed or not urgently required. Reflect on the general intellectual situation of the country. We, no doubt, at the present time possess a fairly strong class of highly educated and truly cultured men. Our Universities have produced many generations of graduates, and all of them are, to some extent, acquainted with literature of the highest type, and, are in general touch with modern thought bearing on some at least of the great departments of human life and activity. Considerable numbers of our graduates have entered the learned professions and have acquitted themselves with credit, while not a few amongst them have risen to great eminence and are fully worthy to take rank even with the best of those sons of Great Britain whose life and work are

devoted to the service of India. But something more is imperatively needed. India, we cannot conceal the fact from ourselves, contributes hardly anything at the present moment towards the progress and extension of knowledge: in this respect, it does not rank even with the smallest of the civilised countries of the West. Our Colleges and Universities, doubtless, help to preserve and impart knowledge and learning, but they do exceedingly little to augment and extend it. It is true we still possess our ancient indigenous learning: of this we are justly proud and we are determined to foster and encourage it; but this learning has long since ceased to be progressive even within its own limited sphere. I do not wish to strengthen the claims of knowledge and learning of the modern progressive type by an appeal to practical considerations, although we fully realise that if Indians are to take a prominent part in the industrial and economical development of their country, they have to apply themselves to the study of physical and natural sciences with much greater energy and earnestness than they have hitherto displayed. I prefer to take my stand on the conviction, deep-rooted in my mind, that India with her great intellectual traditions, India which in old times was one of the chosen seats of wisdom and learning,

is expected, nay, is bound to come to the front rank again and take her due place among those nations which are justly regarded as the leaders in the evolution of Humanity in modern times. This great task, a task which once clearly recognised cannot possibly be declined, devolves plainly in the very first place on our Universities. The time has manifestly come for a further great effort. Nor is there any valid reason to listen to timid counsellors dwelling on the need for caution and deliberation. The laws and conditions of progress are by no means identical in the different departments of human life and endeavour. He would be rash, indeed, who would insist on legal enactments to force on great social changes sure to affect the conditions of life of an entire community; equally rash is he who advocates the sudden re-ordering of the administrative system of the country on an entirely novel basis. Who would care, without the utmost urgency, to run counter to long established social custom and opinion or, even, to firmly rooted social prejudices, or to convulse a nation by an uncalled for redistribution of political rights and powers. But I venture to claim that things lie altogether different in the sphere of that intellectual and educational advance with

which we are concerned, What dangers, I ask, could there possibly be involved even in the most rapid and sudden higher development of our Universities? Modern western knowledge, with all its potentially revolutionary and unsettling tendencies, has been with us now for more than half a century; and the action of higher developments would, almost to a certainty, be not incentive but restrictive and corrective. Apart from the grave financial difficulty, what serious objections could there be raised against the sudden simultaneous creation of twenty or even fifty University Chairs? It will not seriously be asserted that our students are not capable of higher things; on the contrary, there is a great deal of ability of high order, there is much eagerness and ambition, there is true intellectual curiosity. In this University, at any rate, the M.A. Classes are literally crowded; why, then, apart again from the question of funds, should our young men be denied privileges and opportunities regularly enjoyed by their contemporaries in every civilised country in the West? It truly does not appear desirable that, in all futurity, every young Indian who has higher intellectual aspirations, should be compelled, at the expense of much money and great risk and inconvenience, to resort to Oxford or

Cambridge, where after all he may be denied access to a College, or to stray even further, possibly to a Continental or American University.

But, and this is my second point, we here at Calcutta truly realise that the time for academical discussions as to the scope of the task before our Universities and the fitness of our students for higher teaching is really past and gone. The question, whether or not we shall move on in the old groove for another quarter or half a century, is not a matter for practical consideration; one of the alternatives is no longer thinkable. The signs of the time are not, indeed, difficult to read. When, ten years ago, the Universities Commission was engaged on an elaborate enquiry into the educational condition and needs of India, there was much excited feeling, and people talked about the great crisis that had arisen in the life of our Universities. But, at the present moment, I feel very vividly, and I have no doubt that many of you will feel with me, that the crisis of 1903 was nothing compared to the crisis which now hangs over the head of all the Indian Universities, and, more particularly of the University of Calcutta. At that time, Calcutta, like all other Institutions of the same rank, was called upon to remedy obvious defects in its organisation and working, and,

in certain, no doubt, very essential points, to extend its aims and functions; but nothing then appeared to threaten the proud position it had held for so long a time, in the front rank, if not at the head of all Indian Universities. Since that time, extraordinary changes, unexpected and impossible to anticipate, have taken place in the intellectual, or, let us say, in the educational atmosphere. In more than one quarter, it has all at once been discovered that the existing Universities cannot be usefully called upon to effect reforms and enter on higher functions; that these Institutions are really quite incapable of fruitful development, and, hence, should at the utmost be allowed to move on, on the old lines; while, for all higher purposes, entirely new Universities are to be called into life. The call is, on one side, for National Universities, on another side, for true teaching and residential Universities. The existing Institutions are openly or tacitly condemned as non-national, non-teaching, non-residential, and are evidently considered so hopelessly inefficient that any attempt to raise them to a higher status would be labour wasted. I do not feel called upon to analyse and criticise all these novel schemes, much less to examine the policy which underlies them. I refer to them only as conveying to us here at Calcutta an emphatic warning that we must

forthwith reconsider our entire position and be prepared to take needful action. Neither the members of the Indian Universities Commission of 1902 nor the framers of the Indian Universities Act of 1904, nor, in fact, the wisest among people interested in education at that time, saw very far into the future. They were all unaware that an entirely new spirit was abroad, and, that the old Universities which were called upon to mend their ways, would, before long, be imperiously summoned to justify their very existence, notwithstanding the fact that the new statute distinctly aimed at their reconstruction and re-organisation as teaching and residential Institutions. But, at the present moment, there would be no excuse for our failure to recognise the situation; the dangers that threaten us have assumed a very definite shape. Calcutta, indeed, has all along bestirred itself and taken timely action; reforms have been effected; ideals have been formulated, and, in many instances, realised in practice; we are, therefore, not altogether unready to hold our own. But it is evident that we have to be much more vigilant and energetic in the immediate future than we have been in the past. It is now little more than a year that the City of Calcutta lost the proud privilege it had enjoyed for more than a century, as the Capital of the great Indian

Empire, as the residence of the Supreme Representative of our Gracious King-Emperor. We, the members of the Calcutta University, then were at one with all the people of this City and of this Province in regretting our great common loss, and I ventured, in the course of my address last year, to give to that feeling some restrained expression. But, beyond that, we had no desire to go, for we are conscious that a corporation whose special function it is to look after higher education and the promotion of learning, has no call to pass judgment on measures prompted by considerations of high administrative and political expediency. Quite different is the question which concerns and agitates our minds to-day. We the members of the University of Calcutta, have, indeed, no intention whatever to oppose ourselves to the foundation of new centres of high education and learning, either outside or inside our Province; we recognise that the needs of the country in that direction are constantly expanding and that new means may be required to satisfy them, and we are fully prepared to meet fair competition. But we ardently expect and emphatically demand that rival Institutions should not, by artificial means, be enabled to snatch from us in a brief moment a position to which we have risen by the steady work and sustained effort of half a century.

Calcutta may, after all, confidently expect that its past services to the cause of education and knowledge should meet with ready recognition—not that idle recognition which confines itself to a hollow vote of thanks and a polite assurance of esteem, but that only genuine form which expresses itself in active help and sympathy, enabling the recipient to advance his work and realise the aspirations he cherishes.

The pressing circumstances of the time have moved me to dwell to-day principally on higher developments of University work, for it is essential that we should quite clearly appreciate for what further aims beyond the sphere of our present activity we mean to prepare ourselves. But I do not underestimate the importance, I may say, the supreme importance of that part of our teaching University which is actual, I mean our affiliated Colleges. They will ever be, as they always have been in the past, the Institutions on whose strength and efficiency the ultimate success of the University as a whole will depend. It would be idle to ask for the most advanced special teaching and the encouragement of research, if our Colleges did not provide numbers of young men well grounded and trained in habits of industry and regularity. We have, I am glad to say, no reason to be dissatisfied with the condition

of our affiliated Colleges, though I feel they still require to be substantially aided and developed. I discern on all sides evident proof of growing consciousness of obligations and responsibilities and of strenuous work guaranteeing progress and prosperity. May this propitious spirit prevail and grow—this is my hope and fervent wish. May the authorities of our Colleges ever strive to render their management and teaching more efficient and more truly fruitful, and, above all, may they never lose sight of the great truth that all intellectual advance is fundamentally dangerous, unless it is accompanied by a corresponding strengthening of the moral fibre. May every effort be made to strengthen among our students the bonds of order and discipline, to nourish and develop in their minds the feelings of reverence for that Power which is above us all, of respect for established authority, law and good custom. May our students prove by the cultivation of habits of diligence, regularity, obedience and good manners that they are fully worthy, not only from the intellectual but also from the moral point of view, of all the best measures that can be taken to promote and safeguard their welfare and to make them truly useful members of the community. A University cannot stand by itself; it is in constant need of help and

sympathy. We feel this with quite a special force at the present moment. But we are of good cheer, for we are supported by the glad confidence that as long as we shall continue to deserve them, help and sympathy will ever be extended to us from friends all over the country no less than from patrons in high places.

UNIVERSITY CONVOCATION.

26th December, 1913.

Your Excellencies, Ladies & Gentlemen,

The highly prized privilege, which the University enjoys, to confer Honorary Degrees on persons distinguished by their eminent position and attainments, has been exercised sparingly in the past on special occasions, like the visit of His Imperial Majesty the King-Emperor, or the celebration of the Jubilee of our foundation, or when we felt called upon to recognise the just claims of illustrious scholars and investigators, or of our benefactors, conspicuous for their services to the cause of Advancement of Learning. On the present auspicious occasion, when we are in the happy position to accord a cordial welcome to our beloved Chancellor, we have also in our midst quite a number of eminent scholars who have been closely associated with us in the promotion of those purposes of study and research, for which the University has been founded and is generously maintained by a beneficent Government; and it is plainly befitting that we should avail ourselves of this opportunity to inscribe their names on the roll of our Honorary Graduates. I trust I may rely upon

your indulgence, while I briefly remind you of the varied activities of the seven votaries of the Goddess of Learning, whom we have selected for special honour in this instance.

Dr. Paul Vinogradoff stands in the foremost rank of investigators in historical jurisprudence, and his career as a devoted promoter of learning and education has been of an almost romantic character. Whilst still a comparatively young man, he found himself in the position of a Professor in the University of Moscow, where he directed his energies to the task of the spread and development of education in Russia. He was the founder of the Moscow Pedagogical Society and was the Chairman of the Committee of Education, but his very zeal for the promotion of education brought him into conflict with the authorities. He eventually came to England which has since been his land of adoption; here he resumed his interrupted studies in English Social and Legal History, to which he felt attracted, as he has himself told us, by those remarkable features of English life which have always strongly appealed to the interest of all foreign observers and profoundly impressed them, namely, the rule of law and the manly spirit of freedom. In 1903, Dr. Vinogradoff was appointed Corpus Professor of Jurisprudence in the

University of Oxford, a Chair already rendered famous by the achievements of his predecessors, Sir Henry Sumner Maine and Sir Frederick Pollock. It is interesting to note that three successive occupants of the Corpus Chair of Jurisprudence should be closely associated with the work of this University, Sir Henry Maine as one of the most illustrious of our Vice-Chancellors, Sir Frederick Pollock as a Tagore Professor of Law, and Dr. Vinogradoff as a University Reader on the fascinating subject of Kinship in Early Law. Dr. Vinogradoff has been a prolific writer, and all his works, whether they deal with the history and development of Anglo-Saxon Law, the growth of the Manor, the rise of Feudalism, the history of Villainage, the true position of Roman Law in Mediæval Europe or the real characteristics of Serfdom and Socage in social economy, are characterised by an extraordinary combination of legal, philosophical and historical learning. It may be confidently maintained that no modern writer has surpassed Dr. Vinogradoff in the vivid realisation of the continuity of culture and in the application of the comparative method to illuminate many a dark corner in the domain of historical jurisprudence. His eminence as an investigator has been recognised by learned men all over the civilised world, wherever the

value of Comparative Jurisprudence is appreciated, as is amply evidenced by the manner in which he has been honoured by the Academies of St. Petersburg, Berlin, Copenhagen, Christiania and London, and when we confer on him the Honorary Degree of Doctor in the Faculty of Law, we only follow closely in the footsteps of Cambridge, Oxford, Liverpool, Berlin and Harvard.

Dr. Hermann Jacobi is one of the leading European Sanskritists of the present generation and has for many years past filled with distinction the Chair of Sanskrit in the University of Bonn. His researches in the domain of Oriental learning have been of the most diverse character; indeed, there is hardly any branch of Sanskritic Studies which has not been illuminated by his investigations, remarkable for their acuteness and solidity. He is equally at home in Sanskrit Literature, Sanskrit Metrics and Sanskrit Poetics, in the various branches of Indian Philosophy, the Nyaya, the Vaishesika, the Bauddha and the Jaina Doctrines, in the field of Indian Astronomy and Indian Chronology, as also in the domains of Prakrit Languages and Modern Indian Vernaculars. If one was asked to characterise him by a single description, we might call him the most erudite scholar amongst Western Sanskritists, who is deeply

versed in the Sastras and has most appreciatively entered into their spirit. His publications are exceedingly numerous and include not only critical editions of important texts of Sanskrit and Jaina works with English, French and German versions and elucidations, but also historical and philosophical disquisitions, amongst which the most remarkable are those on the Epics of Kalidasa, on Bharavi and Magha, on the Ramayana and on the Mahabharata. Dr. Jacobi, in recognition of his achievements as a scholar, has been raised by the Prussian Government to the rank of a Privy Councillor. He has already commenced the delivery of his promised course of lectures on the history and development of Indian Alankara upon which he is acknowledged as the greatest living authority amongst Western scholars, as is amply evidenced by his versions and studies of the Dhvanyaloka and the Alankara Sarvasva, and his discourses have, as might have been anticipated, created great interest amongst our advanced students.

Dr. Sylvain Lévi who, to his deep regret and our keen disappointment, is unable to be present at this function, is one of the most distinguished of the present generation of French Orientalists, and as Professor in the College de France has helped to found an enthusiastic school of French scholars interested

in Oriental research. Dr. Lévi has invaded almost every conceivable corner in the domain of Oriental Studies, and has investigated unexplored regions in Sanskrit, Chinese, Tibetan, Annamese, Mongolian and Central Asian Languages, the existence of which was first realised by scholars from the magnificent discoveries of Sir Aurel Stein. Dr. Lévi has expounded and solved many a difficult problem in relation to the Brihat Katha Manjari of Kshemendra, the influence of the Greeks on Indian Architecture, the history and development of the Indian Theatre, the doctrine of sacrifice in the Brahmanas, the science of religion in relation to the Religions of India, the history and inscriptions of Nepal, and many similar abstruse topics, the value of which can be fully appraised only by a syndicate of learned specialists. He has undertaken to deliver to our advanced students a course of lectures on the captivating subject of "India and her Neighbours in Ancient Times," in which he proposes to examine what communication existed in by-gone ages between India and the neighbouring countries, specially Greece, Persia, Central Asia, Tibet and China.

Dr. William Henry Young who has just been appointed as the first occupant of the Chair of Mathematics named after your Excellency is a scholar of brilliant academic

distinction. He has, for many years past, sedulously devoted himself to research, with striking results in the highest departments of Mathematics, which have placed him in the front rank of living Mathematicians. He is a Doctor of Science of the University of Cambridge, a Fellow of the Royal Society of London, and shares with the great Swedish Mathematician Mittag-Leffler the high distinction of Honorary Doctorate in Mathematical Science of the University of Geneva. All the investigations of Dr. Young, embodied in more than a hundred papers published in English, French, German and Italian, are characterised by philosophical insight and breadth of view, based upon an accurate and comprehensive survey of those fundamental principles, the development and application of which have enabled mathematicians in the beginning of the twentieth century to annex to their territory new realms of thought. At the close of the last century, the view was generally accepted by mathematicians of repute that all the great conquests in mathematical science had been accomplished, and that nothing was left for achievement but to fill in gaps and to elaborate details of existing theories. From the commencement of the present century, however, a new school of mathematics has arisen, founded on essentially

novel ideas leading to an abundance of new results, which have rapidly developed into a magnificent theory. The genesis of this theory may be traced back to a period long antecedent to the time when it took definite form and shape, for as in the world of organic generation, so in the world of intellectual production, there are no sudden starts, no absolute beginnings. This new mathematical discipline, as it may without impropriety be called—the Theory of Functions of a Real Variable—took its rise, partly in the speculations of Georg Cantor on the nature of the concept of mathematical infinity, and partly in the persistent endeavours of isolated purists to give a more rigid form to proofs of well-known theorems and a greater precision to the conditions under which certain processes are allowable. The theory thus formulated did not readily meet with universal acceptance, and mathematicians of the older school, not only disputed the correctness of the reasoning based on the Transfinite Numbers of Cantor, but ridiculed the theory as metaphysical and beyond the legitimate bounds of mathematical investigation. Even amongst scientific men of eminence, venerable half-truths stand out tenaciously, while novel ideas which challenge pre-conceived notions, by reason of their very subtlety, can make but slow progress, and it is

not a matter for surprise that a distinguished mathematician of an older generation, in Germany, the very land of the birth and development of the new theory, solemnly maintained, only five years ago, the astounding position that the last word on the subject of integration had been said by Riemann. But the battle has been strenuously fought and triumphantly won. In every notable seat of mathematical learning, all over Europe and America, it is now widely recognised that a new type of mathematics has arisen. The centre of interest has shifted from the old to the new, and the younger generation of mathematicians has made even older investigators realise that an extensive and unexplored territory, full of beauty and riches, has been brought within the sphere of their activity. This result has been achieved by the pioneer work of a small and devoted band of mathematicians, of whom Dr. Young has been one of the most indefatigable and enthusiastic. The great bulk of his numerous papers are devoted to the elucidation of the new concepts, many of which are due wholly or partially to him, and we owe to him brilliant researches on the nature of a function, on the theory of integration, on the treatment of successions of functions which possess no limiting function, and on the employment of integrals which do

not usually exist. On the other hand, his examinations of the analytical basis of non-Euclidean Geometry, the theory of geometrical transformations and the theory of trigonometrical series, which had already engaged the attention of a long succession of distinguished mathematicians of the present and of a past age, have revealed many wholly unsuspected properties of such novelty that his investigations may rightly be deemed to constitute entirely new departures in the history of these problems. The eminent position occupied by Dr. Young as an exponent of the modern school of mathematicians may be gathered from the circumstance that he occupies a Research Chair of Mathematics specially created for him at Liverpool which has recently been transformed into an equally unique Chair, namely, a Professorship of the Philosophy and History of Mathematics. His inaugural lecture, to which we recently listened with interest and pleasure, affords ample indication, however, that he is not merely a brilliant investigator, but also a gifted scholar of high ideal and lofty purpose, competent to take a broad and sympathetic outlook of his new environment. I trust that, under his guidance, we may be able before long to establish in this University a Mathematical Institute on the most modern lines and fully worthy of the foremost

Universities amongst the progressive nations of the West, for in the field of Mathematics at least, the standard of efficiency is of universal application, and no intelligible distinction can be maintained in this respect between the East and the West. We feel confident that our advanced students will be attracted towards Professor Young and will be stimulated by his teaching and example to undertake fruitful work in the most promising regions of the ever-widening domain of mathematical research.

Mr. Henry Hubert Hayden, ever since he joined the Geological Survey eighteen years ago, has been one of its most devoted and enthusiastic workers, and has made numerous contributions to the subject of Indian Geology. These cover an extensive ground including the whole range of the Himalaya mountains, Tibet, Afghanistan and Burma, and whether it is the question of gold in southern India, coal in Assam, or copper in Darjeeling, the problem has not escaped the vigilance of Mr. Hayden. These investigations have proved fruitful of practical results of considerable value and long ago marked him out as the inevitable successor to the Directorship of the Geological Survey upon the retirement of his distinguished predecessor Sir Thomas Holland. Mr. Hayden has also taken an active interest in the work of the University and is now Dean of the

Faculty of Science. In conferring upon him, the Honorary Degree of Doctor of Science, we accord rightful recognition to highly meritorious scientific work, most unostentatiously accomplished.

In Dr. Rash Behary Ghose, we have one of our most distinguished graduates whose brilliant academic career and subsequent remarkable success in various walks of life have spread far and wide the fair fame and good name of this University. For many years past, he has been acknowledged without question as pre-eminently qualified for the leadership of his educated countrymen, by reason of the massiveness of his intellect, the sturdy independence of his character, the moderation of his views, and the sobriety and soundness of his judgment. His treatise on the Law of Mortgages, first composed quite early in his career and laboriously recast and improved from time to time, is distinguished by a remarkable purity of diction, precision of argument, and clearness of presentation, which have secured for it, for well-nigh forty years, a place in the foremost rank of legal masterpieces. To crown a splendid career of beneficent labour for the advancement of his countrymen, he has now, with a nobility of soul equalled only by the greatness of his intellectual powers, made a princely gift to his

Alma Mater for the foundation of Professorships and Studentships in aid of the University College of Science—an act of liberality sufficient by itself to make his name remembered with reverence and gratitude by future generations of our students.

Lastly, in Mr. Rabindranath Tagore, we have our national poet, who, to our pride and satisfaction, is at the present moment not only the most prominent figure in the field of Bengali Literature, but also occupies a place in the foremost rank amongst the living poets of the world. This is not an occasion on which I could undertake a critical estimate of his voluminous work as a lyrical poet, dramatist and prose-writer, but one may, without fear of contradiction, venture upon the statement that the finest products of his imagination are characterised by an element of beauty, patriotism, and spirituality, which is of perennial value and independent of local and racial accidents and which will appeal to all cultured minds qualified to appreciate the highest flights of poetic thought and manifestations of spiritual beauty. Apart, however, from the pre-eminence of Mr. Rabindranath Tagore as a poet, we must not overlook the true significance of the worldwide recognition now accorded for the first time to the writings of an author who has embodied

the best products of his genius in an Indian vernacular; this recognition, indeed, has been immediately preceded by a remarkable revolution in what used to be not long ago the current estimate, in academic circles, of the true position of the vernaculars as a subject of study by the students of our University. It is now nearly twenty-three years ago that a young and inexperienced Member of the Senate earnestly pleaded that a competent knowledge of the vernaculars should be a pre-requisite for admission to a Degree in the Faculty of Arts in this University. The Senators complimented the novice on his eloquence and admired his boldness, but doubted his wisdom, and, by an overwhelming majority, rejected his proposal, on what now seems the truly astonishing ground that the Indian Vernaculars did not deserve serious study by Indian students who had entered an Indian University. Fifteen years later, the young Senator, then grown maturer, repeated his effort, with equally disastrous result. In the year following, he was however more fortunate and persuaded the government of Lord Minto to hold that every student in this University should, while still an under-graduate, acquire a competent knowledge of his vernacular, and that his proficiency in this respect should be tested precisely in the same manner as in the case

of any other branch of knowledge and should be treated as an essential factor of success in his academic career. After a struggle of a quarter of a century, the elementary truth was thus recognised that if the Indian Universities are ever to be indissolubly assimilated with our national life, they must ungrudgingly accord due recognition to the irresistible claims of the Indian Vernaculars. The far-reaching effect of the doctrine thus formulated and accepted, has already begun to manifest itself, but time alone can prove conclusively the beneficent results of this vital and fundamental change. Meanwhile, the young Senator of twenty-three years ago has the privilege to ask your Excellency to confer the Honorary Degree of Doctor of Literature and thus to set, as it were, the seal of academic recognition upon that pre-eminently gifted son of Bengal who has been a loyal and life-long devotee of the most progressive of the Indian Vernaculars.

UNIVERSITY COLLEGE OF SCIENCE.

27th March, 1914.

Fellows, Graduates, Teachers and Students of
the University of Calcutta,

I do not give expression to mere conventional politeness when I say that I deem it a high honour to be permitted to lay the Foundation Stone of the University College of Science. I sincerely regard it as a high privilege thus to associate myself intimately with the actual establishment of an institution, the project for the foundation of which has been nearest to my heart, ever since it became incumbent upon our University to make provision for the instruction of students under the Indian Universities Act of 1904. If I had been left free to choose the course to be adopted on this auspicious occasion, I would have preferred to have the ceremony performed by His Excellency the Chancellor or His Excellency the Rector, either of whom could have spoken on the paramount need for the establishment of the University College of Science with much greater weight and eloquence than I can ever aspire to do. But I venture to hope that when the buildings we have undertaken to erect are brought to

completion, the Senate may enjoy the great good fortune to have the Laboratory opened by either the Chancellor or the Rector. Meanwhile, as the choice of the Syndicate has fallen on me, I trust, I may rely upon your indulgence while I remind you briefly of the stages through which we have passed in the fulfilment of our endeavour to establish a University College of Science.

It is now nearly twenty months ago that on the 15th June, 1912, Sir Taraknath Palit executed a trust deed in favour of the University, by which he transferred money and land to the value of more than seven lacs of rupees for the promotion and diffusion of scientific and technical education and the cultivation and advancement of Science, Pure and Applied, amongst his countrymen. This princely gift had, at the time, no parallel in the annals of University education in India, and justly called forth the admiration of all persons, official and non-official, European and Indian alike, who were genuinely interested in the intellectual and material advancement of our people. The gratitude thus evoked was enhanced, when, not many weeks later, Sir Taraknath Palit, on the 8th October, 1912, executed a second trust deed in favour of the University by which he transferred money and property worth another seven lacs of rupees,

subject to his life interest therein, or the purpose of aiding and better carrying out the trusts mentioned in the first trust deed. In the interval which elapsed between these two munificent gifts, the Syndicate had applied to the Government of India for financial aid to enable them to carry out the objects of the endowment. The proposal of the Syndicate was extremely moderate and merely involved a request that they might be permitted to apply Rs. 12,000 annually for the maintenance of the laboratory of the College of Science out of a recurring annual grant of Rs. 65,000 which, shortly before the gift of Sir Taraknath Palit, had been sanctioned by the Government of India for the development of University work, and had been announced by His Excellency the Chancellor in his Convocation Address on the 16th March, 1912. The proposal of the University in this respect was strongly supported by His Excellency the Governor in Council and was ultimately approved by the Government of India on the 18th September, 1912. Let me add here that we were truly thankful for this contribution and felt distinctly encouraged thereby. The true position of affairs, as they stood at the time, may be briefly summarised. The University had funds at its disposal, sufficient for the foundation of two Chairs, one for Chemistry and one for Physics,

to be maintained out of the income of the endowment created by Sir Taraknath Palit. The University was in return bound, under the terms of the trust deeds accepted by the Senate, to apply at least two and a half lacs of rupees out of its own funds, to construct, on the site where we are now assembled, a suitable building for the proper and adequate equipment of a University College of Science with Lecture Rooms, Libraries, Museums, Laboratories and Workshops. The University had at its disposal the requisite sum of two and a half lacs of rupees, and had been able to secure from the Government of India a monthly grant of one thousand rupees for the maintenance of the proposed Laboratory. But it was plain to the most superficial observer that the princely benefaction of Sir Taraknath Palit, supplemented by the contribution from the University Reserve Fund and the monthly Government grant, was by no means sufficient for the erection and maintenance of a College of Science worthy of the foremost University in India. Additional funds were urgently needed for buildings and equipments as also for additional Chairs. We felt impressed that as the gift of Sir Taraknath Palit included valuable landed property and buildings, it would be a lamentable mistake to miss this splendid opportunity for the establishment of a

residential College of Science, where the professors and students might come into the closest personal contact and combine to foster a truly academic spirit.) We also felt convinced that as enormous strides had been made, in recent years, in every department of scientific activity, specialists were required and the most improved and refined appliances were indispensable, if research work was to be undertaken and advanced instruction given, on an even moderately comprehensive scale. From these points of view, the Syndicate on the 30th December, 1912, applied to the Government of India for financial help in aid of the University College of Science, and urged that in view of the unique character of the benefaction of Sir Taraknath Palit, the Government might properly supplement the same by an equal sum. The Syndicate felt that the claims of scientific and technical education were incontestable, and expected that as the Government had expressed their readiness to afford liberal financial assistance in support of educational schemes for the creation of new centres of intellectual activity, they would not be slow to recognise that Calcutta had established a solid claim to preferential treatment by reason of the liberality and munificence of one of its most public-spirited citizens. At the same time, the Syndicate appointed a committee of

specialists to draw up the plans for the proposed Laboratory Building, and deputed Dr. Prafullachandra Mitra to report on the question of equipment of a modern Chemical Laboratory in this country, after a personal inspection of the chief laboratories throughout India. The preparation of even the first sketch proved to be a work of much labour and thought, notwithstanding the able and willing assistance rendered by distinguished men like Dr. Prafullachandra Ray, Babu Chandrabhushan Bhaduri and Dr. Paul Brühl. The plans were ready in outline now nearly twelve months ago; but considerable disappointment was in store for the promoters of the scheme. The Government of India did not respond to the request of the University for liberal financial assistance to supplement the gift of Sir Taraknath Palit, and the Syndicate felt constrained to reconsider the situation. The institution of the University College of Science was inevitable; there was no possible escape from the situation; the Senate had solemnly accepted the trust on condition that suitable laboratories would be erected and maintained. The Syndicate consequently proceeded to modify the plans, with a view to start the Institution on a more modest scale than what had been originally intended. The alteration of the plans with a view to secure the maximum

of efficiency within a limited space was, as might be expected, a task of some nicety, and many weeks elapsed before they could be placed in the hands of an Engineer. In the accomplishment of this part of the work, difficult and laborious as it was, we had fortunately the advantage of the assistance of an experienced Member of the Senate, Rai Bahadur Krishnachandra Banerjee who pushed through the work of preparation of the plans and estimates with the maximum speed possible.

During this interval, another notable event had happened in the history of the projected institution, which proved conclusively that the realisation of our ambition to establish a University College of Science had been undertaken in the fulness of time and that its actual accomplishment was well in sight. On the 8th August, 1913, Dr. Rashbehary Ghose, who has for many years past rightly occupied a pre-eminent position amongst the graduates of this University, offered to the Senate a sum of ten lacs of rupees for the foundation of four Professorships and eight Research Studentships in connection with the University College of Science, as also for the maintenance of its Laboratory in an efficient condition. The Chairs thus founded were to be devoted to four important subjects, Applied Mathematics, Physics, Chemistry and Botany

with special reference to Agriculture. We still vividly recollect the real joy and enthusiasm with which we all welcomed this magnificent gift. It came, indeed, at a most opportune moment; it enabled us to reiterate most emphatically our claims to financial assistance from the custodians of the public funds. On the 4th October last, accordingly, the Syndicate again addressed a communication to the Government of India and pressed for liberal and substantial help in aid of the University College of Science, which had now been financed by the munificence of two of our foremost citizens to the extent of twenty-five lacs of rupees, supplemented by a contribution of three lacs of rupees from the Reserve Fund of the University formed out of the surplus of examination fees realised from candidates of all grades, in different stations of life, from every corner of this province. The response, however, was slow to come, and the only assurance we received was that when funds were available, the request of the University would be considered along with other claims. The true position now became perfectly plain to even the most optimistic amongst the promoters of the scheme for the foundation of a University College of Science. They fully realised that, for the present, at any rate, the University must rely upon its own resources, limited though

they be, supplemented by the generosity of founders like Sir Taraknath Palit and Dr. Rashbehary Ghose, whose names will be handed down to posterity and will be gratefully mentioned by all true lovers of education from generation to generation, even long after the names of present-day notabilities—euphemistically so styled—shall have passed into inevitable and well-merited oblivion. In these circumstances, the Syndicate and the Governing Body of the University College of Science decided to take one step forward for the speedy realisation of the long-cherished ambition of our illustrious benefactors to promote scientific and technical education amongst our people.

The plans and estimates which had been under preparation and examination for many months were now finally adopted and arrangements were made to place the work of construction of the Laboratory Building in the hands of a competent and experienced contractor, who undertook to bring the work to completion in nine months. At the same time, a sum of three lacs of rupees was set apart from the Reserve Fund of the University to be applied to meet the cost of erection of the building. It is consequently not too much to hope that towards the end of this year, if no unforeseen accident happens, the Laboratory Building will be ready for occupation.

Simultaneously with the final approval of the plans and estimates for the Laboratory, the Syndicate, at the instance of the Governing Body of the College of Science, took vigorous steps for the appointment of the first Professors and for the selection of the first set of Research Students. It is a matter for sincere congratulation that we have been able to secure scholars of high distinction as our first Professors, because it is obviously of supreme importance that our work should be initiated under the guidance of not merely the most accomplished but also the most devoted and the most enthusiastic workers available. For the Chair of Chemistry founded by Sir Taraknath Palit, we have been able to secure the services of Dr. Prafullachandra Ray who, if I may be allowed to risk a prophecy, will hereafter be named as the first founder and inspirer of a flourishing School of Chemistry at Calcutta; he has expressed his readiness to undertake the onerous duties of his new office with a cordiality which will not surprise his numerous friends who have witnessed many a proof of the true nobility of his nature. For the Chair of Physics created by Sir Taraknath Palit, we have been fortunate enough to secure the services of Mr. Chandrasekhara Venkata Raman, who has greatly distinguished himself and acquired a European fame by his brilliant researches in

the domain of Physical Science, assiduously carried on, under the most adverse circumstances, amidst the distractions of pressing official duties. I rejoice to think that many of these valuable researches have been carried on in the laboratory of the Indian Association for the Cultivation of Science, founded by our late illustrious colleague Dr. Mahendralal Sircar, who devoted a life-time to the foundation of an institute for the cultivation and advancement of science in this country. I shall fail in my duty if I were to restrain myself in my expression of the genuine admiration I feel for the courage and spirit of self-sacrifice with which Mr. Raman has decided to exchange a lucrative official appointment with attractive prospects, for a University Professorship which I regret to say does not carry even liberal emoluments. This one instance encourages us to entertain the hope that there will be no lack of seekers after truth in the temple of knowledge which it is our ambition to erect. For the Chair of Applied Mathematics founded by Dr. Rashbehary Ghose, we have secured the services of Dr. Ganes Prasad, who is now Professor of Mathematics in the Queen's College at Benares and has expressed his readiness to relinquish his present appointment with its attendant prospects of future preferment, for our University Professorship. The presence of Dr.

Ganes Prasad amongst us is bound to strengthen our cause. He had varied experience as a distinguished student in our University as also in the Universities of Allahabad and Cambridge and finally as a student under Dr. Felix Klein of Göttingen, the most profound and at the same time the most inspiring of living mathematicians. Dr. Ganes Prasad has furnished ample proof, by his original investigations, of the benefit he has derived from personal contact with western teachers of the highest eminence. For the Chair of Chemistry founded by Dr. Rashbehary Ghose, we have selected Dr. Prafullachandra Mitra, who had a distinguished career as a student of Chemistry, in this University as also in the University of Berlin and has already given unmistakable evidence of the value of his experience both in the work of instruction of advanced students and in the organisation of laboratories. For the Chair of Physics founded by Dr. Rashbehary Ghose, we have selected one of our most distinguished graduates, Mr. Debendramohan Bose, who subsequently distinguished himself in the University of London, and had the advantage of prolonged study and training in the University of Cambridge. But although his attainments are of a high order, he has consented, in view of the extensive developments of Modern Physics, to spend two

years in the Universities of Berlin and Göttingen to equip himself fully for the discharge of his responsible duties. Finally, for the Chair of Botany founded by Dr. Rashbehary Ghose, we have selected Mr. Shankar Purushottam Agharkar, a distinguished graduate of the University of Bombay, who was for four years Lecturer on Botany and Zoology at the Elphinstone College. Mr. Agharkar, by his published researches both in Botany and in Zoology, has given incontestable evidence of his capacity to profitably undertake advanced work, and with a view to qualify himself adequately for the discharge of his new duties, he has consented to pursue his studies in one or more of the Universities of Germany for a term of two years. To each of these Professors, we have arranged to assign, as Research-students, two of our distinguished graduates, some of whom have consented to relinquish lucrative appointments to enable them to pursue higher studies in the College of Science. The brief description I have given of the antecedents and attainments of the six gentlemen nominated as the first Professors of the College of Science will, I venture to hope, satisfy the most fastidious critic that the future of the institution is safe in their hands and that our work has been placed on a solid and sound basis. I trust, I may also be permitted to

dwell without impropriety on the gratifying circumstance that of the six Professors, fully one half come from Provinces other than Bengal. We are proud, indeed, to have on our Teaching Body these distinguished representatives of Madras, Bombay and the United Provinces. No stronger testimony is needed to emphasise the cosmopolitan character of Science, and I fervently hope that, although the College of Science is an integral component part of the University of Calcutta, it will be regarded not as a provincial but as an All-India College of Science, to which students will flock from every corner of the Indian Empire, attracted by the excellence of the instruction imparted and of the facilities provided for research. I confidently entertain the hope that an institution of this character will not languish from the lack of supporters, that a few at least will emulate Sir Taraknath Palit and Dr. Rashbehary Ghose, while many will follow their noble examples, though at a respectful distance, and thus enable us to meet the most pressing demands of the hour, namely, equipment for the laboratory and scientific books for the library. I also venture to express the hope that our funds may increase so as to enable us to include in the body of our instructors, if not permanently, at any rate, for short periods, men of Science of real distinction from the

great Universities of the West. For we keenly appreciate the high value of the vitalising and inspiring influence which can be exercised on our workers by the sages of Western seats of learning who have consecrated their lives to the noble cause of search after truth and have officiated as high priests in her sacred temple. May it fall to the lot of every worker in the University College of Science to follow the lead of those great teachers and to emulate them in the task of the expansion of the boundaries of the limitless field of knowledge.

I have now described to you, in feeble language, the story of the lofty ideals which have animated the promoters of the College of Science, of the munificent gifts by two of our illustrious countrymen which have rendered the realisation of those ideals possible, and of the truly patriotic personal sacrifices which distinguished Indian scholars and investigators have proved themselves ready to undergo in the search after truth, in the full belief that that which we know is but little, that which we know not is boundless. But although we are constrained to acquiesce in an humble beginning, our hopes are well-founded. We confidently look forward to gradual expansion, to a life of steady growth and uninterrupted activity; for our cause is noble, and we are inspired by the invigorating belief that Science

in its ultimate assertions echoes the voice of the living God.

Gentlemen, I shall now, with your permission, lay the foundation stone of the University College of Science, and I call upon you all to bless this great undertaking from the innermost depths of your souls.

UNIVERSITY CONVOCATION.

28th March, 1914.

Your Excellency, Ladies and Gentlemen,

Twelve eventful months have rapidly rolled away since I had last the privilege to address the Convocation from my place in this historic hall and to convey to the new graduates of the University a message of advice and encouragement. Under ordinary circumstances, I would have preferred to take up the position of a listener rather than that of a speaker on the present occasion. But events beyond my control render it impossible for me in this instance to depart from the custom, which was inaugurated more than half a century ago by the first Vice-Chancellor of this University and has been loyally followed by all his successors, and it is incumbent on me again to take stock of the progress that has been attained in our academic life and to indicate the outlines of the work which still remains to be accomplished.

The history of our academic work during the year which has just elapsed, is a record of uninterrupted progress ; it may appropriately be described even as progress remarkable in the annals of this University. But I regret

that I cannot this day, as I was happy to do twelve months ago, congratulate myself that I am not called upon to deplore the death of our active workers. Indeed, during this brief period, our ranks have been thinned away by death, retirement or resignation to an extent which we do not readily recognise, till we come to examine closely the catalogue of our losses. By the death of Babu Gaurisankar De, we have lost a veteran Professor, who was rightly regarded as a tower of strength to the cause of education in these Provinces. After an academic career of exceptional brilliance, he attached himself to the cause of instruction of our youths and unremittingly toiled in the performance of his task for forty-six years to the very day of his death. His extensive knowledge of mathematics, his powers of exposition, the accuracy and thoroughness with which he accomplished whatever he undertook, the innate modesty of his nature, secured for him the spontaneous admiration of all who ever came into contact with him. His services to the institution to which he adhered through life, with a fine sense of loyalty which would not even tolerate the thought of preferment elsewhere in his own line, and his services to the University as a Member of the Senate, of the Board of Studies in Mathematics and of the Board of Examiners, for more than a

quarter of a century, will be held in grateful remembrance by all who are interested in the progress of education amongst our people. But if we lament the loss of a veteran like Babu Gaurisankar De who has passed away full of years, our grief is intensified in a manifold degree when we are reminded of the loss we have sustained by the premature death of Babu Binayendranath Sen, who has been cut off in the prime of life by a fell disease, while still in the full vigour of manhood, in the plenitude of beneficent activity and with prospect of many years of useful work before him. The solidity of his learning, the soundness of his judgment, the nobility of his character, the unselfishness of his devotion to his life-long mission, made him the ideal teacher, the guide, friend and philosopher of his students who held him in the highest reverence and deepest affection. He commanded the genuine respect of all who came into contact with him in whatever sphere he worked, whether as an instructor of youth, as a Member of the Senate, as a Member of the Board of Studies, as a Member of the Board of Examiners, as an Inspector of Colleges or as the Secretary of that useful institution, the Calcutta University Institute, of which he was for many years the chief guiding spirit. He has passed away, his life-work unfinished, but

his memory will be lovingly cherished by future generations of students and educationists.

By the retirement of Mr. Kùchler, we have lost an educational officer of great ability and wide experience. A scholar of varied culture, philosophical and scientific, he rapidly built up a reputation for himself as a Professor of Mathematics and Physics in days gone by, when there was no lack of brilliant and erudite teachers. Later on, he distinguished himself by sobriety of judgment when placed at the head of the Department of Public Instruction in these Provinces. In the University, with which he was closely associated for more than a quarter of a century in various capacities, he commanded the respect of his colleagues as a sound and reliable adviser; nothing was more distasteful to him than what is so captivating to many an inexperienced enthusiast, the role of the erratic reformer, and it was a distinct advantage to the cause of progress that he took a prominent part in the deliberations of the Senate and of the Special Committee when the New Regulations were framed. By the retirement of Mr. Little, who was intimately associated with the University as Registrar during very strenuous times, the memory of which we have not forgotten, we have lost a successful and experienced Professor of Mathematics. By the retirement of Mr.

Hallward, we have lost a fearless worker in the field of education, whose undoubted abilities might have been more fruitful of results, if his zeal for reform had been tempered by sympathy for the people whom he was called upon to serve. By the retirement of Mr. Prothero, we have lost an educational officer of long and varied experience, whose modesty probably stood in the way of a full recognition of his considerable abilities. By the retirement of Bishop Copleston, we have lost an erudite scholar and investigator, who, notwithstanding the pressure of his ecclesiastical duties, never grudged to help us with his co-operation and advice in linguistic matters specially within his province. By the retirement of Sir Richard Harington, we have lost a patient and conscientious Judge, who took an unfailing interest in the reform of legal studies in this University. By the retirement of Mr. Alexander Thomson, we have lost a veteran educationist who conscientiously devoted himself, for more than a quarter of a century, to the task of instruction of our youths in Mathematics, in one of the foremost colleges of this city. Whatever duties he undertook, he discharged with unfailing accuracy, and he impressed on whatever he touched the indelible mark of the man distinguished by capacity to take infinite pains—and it was mainly for this reason that

his services as a tabulator and as a Member of the Board of Accounts were truly invaluable. By the retirement of Dr. Denison Ross, we have lost one of our most devoted workers who had been intimately associated with us for the last ten years in various spheres of activity. He was keenly interested in the study of languages, and his services were eagerly sought and highly valued in the cause of promotion of Persian and Arabic learning. But no acknowledgment of his claims on our gratitude will be complete without a reference to the prominent part taken by him when the New Regulations were framed by the Special Committee of which he acted as Secretary, and discharged his difficult and laborious duties with tact, caution and judgment. By the retirement of Mr. Finnimore, we have lost the Dean of our Faculty of Engineering, and it will not be easy to fill his place by the appointment of an officer of equally mature judgment and varied experience. Finally, by resignation, we have lost, only temporarily, let us hope, the services of Professor Henry Stephen, of Father O'Neill, of Dr. Hayden and of Mr. Milburn. Last, but not least, we lament the loss of one, who, though no longer directly connected with us, had been in the past, one of the truest and most generous friends of this University, I mean, our late Chancellor, the

Earl of Minto. This is neither the time, nor the place, where I could fittingly pronounce an eulogy upon the administration of the Earl of Minto during one of the most critical periods in the history of British Rule in this country, when he filled the exalted office of Viceroy and Governor-General of India. But I shall grievously fail in my duty, if I refrain from public acknowledgment of the debt we owe to him personally as Chancellor of this University. It is superfluous for me to remind you that he held the office of Chancellor at one of the most critical periods of our academic life, when the whole problem of the reconstruction of the University was under examination from every conceivable point of view, and the ultimate decision of more than one question of fundamental importance depended upon the judgment of the Chancellor himself. The view he took of these academic matters was characterised by soundness of judgment, genuine sympathy, and above all, transparent sincerity, which inspired confidence, silenced opposition, and secured loyal co-operation.

During the last twelve months, the University has been the fortunate recipient of a number of endowments which are of importance as affording unmistakable evidence of the continued interest taken in its prosperity

by people of education and culture in different parts of the Province. It is remarkable that three of these have been created for the encouragement of study of Mathematical or Natural and Physical Science, one for the encouragement of Bengali Composition and one for proficiency in Law. It is a matter for special satisfaction to all Members of the University that one of the endowments will be associated with the names of our late distinguished colleagues, Nawab Abdul Latiff and Father Lafont, each of whom in his own department rendered services to the cause of higher education fully worthy of commemoration. But all these endowments, though eminently praise-worthy and cordially welcomed by the Senate, have been thrown into the shade by the princely benefaction of Dr. Rashbehary Ghose, which has enabled the promoters of the College of Science to take determined and rapid steps forward for the immediate realisation of this epoch-making undertaking. The full significance of the institution of a University College for the study of Science, Pure and Applied, and of Technology, does not require an elaborate commentary at my hands, and the six Professors, assiduously engaged in advanced study and investigation and in the promotion of research by our senior students, will exercise a most powerful and beneficent

influence upon the entire system of higher studies in this University. It would be a mistake, however, to suppose that the endowments I have mentioned afford the sole indication of the progress we have made in the sphere of advanced work by the University. Mr. Saratkumar Lahiri, one of the most enterprising publishers of this city, whose premature death is deeply mourned by a large circle of friends, recently proposed to the University, that the income of the fund created by him five years ago might be applied towards the foundation of a Research Fellowship for the investigation of the History of the Bengali Language and Literature. The proposal was cordially approved by the Syndicate and sanctioned by the Senate, with the result that we have been able to appoint Rai Saheb Dineschandra Sen for a term of five years as Research Fellow to carry on investigations in the History of the Bengali Language and Literature. The Fellowship thus established has been appropriately named after the illustrious father of the Founder, the late Babu Ramtanu Lahiri, one of the most distinguished educationists of a generation which has now passed away. We confidently expect that the first Ramtanu Lahiri Research Fellow will do ample justice to his office and will be able to carry on without distraction

the valuable work which he commenced in his luminous lectures on the *History of the Bengali Language and Literature*, now worthily supplemented by two handsome volumes of *Typical Selections*, the fruit of years of laborious study and research. The Senate has also sanctioned a scheme, in the first instance provisionally for a term of five years, for the institution of a Travelling Fellowship. The duty imposed upon the Travelling Fellow will be to investigate educational methods abroad in his special department of study, preferably in Great Britain and in the Continental European seats of learning. This system of Travelling Fellowship, if it is judiciously worked and if the selection of Fellows is made with care and discretion, is bound to prove an invaluable help in the cause of promotion of higher studies.

The next subject, upon which I desire to dwell briefly for a moment, is the actual realisation of our scheme for the appointment of University Professors, upon which we have been engaged for the last two years. It is since the date of the last Convocation that all our University Professors have entered upon the discharge of the duties of their new office. Dr. Thibaut, as Carmichael Professor of Ancient Indian History and Culture, has opened his course with a captivating series of

lectures on the earliest stages of Aryan Civilization. Dr. Young, as Hardinge Professor of Mathematics, has, on the system so familiar in German Universities, started a colloquium where the most advanced students, some of whom are themselves engaged in the work of instruction in Colleges, have obtained from him an insight into that fascinating and all comprehensive department of modern mathematics, the Theory of Functions of a Real Variable. Dr. Strauss, Professor of Comparative Philology, has taken seriously in hand our Sanskrit students, who are however considerably handicapped in their study of this subject by their want of knowledge of the Classical and Modern languages of Europe. Professor Hamilton has most energetically commenced the organisation of our school of Economics and has, I know, produced a profound impression upon our post-graduate students. Finally, Dr. Brajendranath Seal has commenced a series of thoughtful and invigorating lectures on Philosophy, which embody the ripest fruits of his erudition and power of incisive analysis, and which will stand favourable comparison with similar lectures delivered in any other seat of learning. During the last twelve months, the Senate has been able to create also two new Professorships of English language and literature, principally

for the benefit of our M.A. students, and has been fortunate enough to secure the services of a veteran educationist like Professor Stephen and a brilliant young teacher of the stamp of Professor Robert Knox. During the last twelve months also, in addition to the University Professors I have named, we have been able to secure the services of distinguished Readers, each an acknowledged master in his own special department and an unfailing source of inspiration to all genuine students. The lectures on Kinship in Early Law, which were delivered by Professor Paul Vinogradoff to a distinguished and appreciative audience, were characterised not merely by profoundness but also by a remarkable power of analysis and lucidity of exposition. The learned lectures, which were delivered by Professor Hermann Jacobi on the Theory and History of Indian Poetics, were equally remarkable in their own special line, and revealed to our students the innermost significance of different schools of rhetoric which they had superficially studied without a genuine appreciation of their mutual relation. Amongst scholars who have been closely associated with us for years and with whose attainments we are well-acquainted, I need but mention Mr. Jogindranath Dasgupta, who has given to our students a vivid description of Bengal in the Sixteenth Century and

Mr. George Findlay Shirras who is still expounding to them many a mystery in the fascinating field of Indian Currency and Finance. But we have not remained satisfied with the work already accomplished. We have made elaborate arrangements for the year to come, and during the session which is about to commence, we expect to have series of lectures by Professor Sylvain Lévi on the subject of Communication between India and her Neighbours in Ancient Times, by Mr. Bhandarkar, the inheritor of an honoured name, on the subject of Indian Epigraphy, by Mr. Yamakami, a well-known Japanese scholar, on the subject of India as depicted by Chinese Travellers, by Babu Dineschandra Sen on the Vaisnab Literature of Mediæval Bengal, and by Mr. Dasgupta on the subject of India as depicted by European Travellers in the Seventeenth Century. A series of lectures by the scholars we have named cannot possibly fail to create enthusiasm amongst our students ; but to their great good fortune, we have been able, with the kind assistance of my distinguished predecessor in this chair, Sir Alexander Pedler, to secure the services of a number of eminent scientific men of the foremost rank, who will visit Australia as members of the British Association for the Advancement of Science and who have consented, on the

way of their return home, to visit Calcutta and to deliver courses of lectures as University Readers, each in the special department of study which he has made peculiarly his own by lifelong study and investigation. In this way, we have arranged to bring our students, next cold weather, into contact with Professor Herbert Hall Turner, Savilian Professor of Astronomy in the University of Oxford, Professor Ernest William Brown of the University of Yale, Professor Henry Edward Armstrong, Professor of Chemistry in the Imperial College of Science and Technology, Professor William Mitchinson Hicks, Professor of Physics in the University of Sheffield, and Professor William Bateson, Fullerian Professor of Physiology in the Royal Institution.

I cannot leave off this imperfect review of the facilities we have arranged for the higher instructions of our advanced students without a brief reference to the remarks of well-intentioned friends, who take a pessimistic view of the situation and regard all this as an expensive luxury for which, they maintain, our students are really not fitted. I cannot agree with this depreciatory opinion about the qualifications and capabilities of the best educated amongst our young men. I deny most emphatically that they are not thoroughly fitted to profit by the elaborate courses of

lectures delivered by eminent investigators like Dr. Andrew Russell Forsyth, Dr. Hermann Oldenberg, Dr. Hermann Jacobi and Dr. Paul Vinogradoff. That the seed has fallen on fruitful soil is amply evidenced by the awards we have recently made, on the report of competent and exacting judges, for original research. Amongst these, I may mention the theses on a Problem in Endless Dimensions by Dr. Syamadas Mookerjee for the Griffith Memorial Prize, on the Anatomy of the Atopus by Dr. Ekendranath Ghose for the Griffith Memorial Prize, on a History and Critical Estimate of the work of Ancient Indian Writers on Medicine by Dr. Girindranath Mookerjee to whom the Griffith Memorial Prize had been on a previous occasion awarded for a highly original and valuable treatise on the Surgical Instruments of the Hindus, on the origin and development of the Bengali Alphabet by Babu Rakhal Das Banerjee for the Jubilee Prize, on the History of Occupancy Right in Bengal by Babu Radharaman Mookerjee for the Onauth Nauth Deb Prize, and on Law and Jurisprudence in Ancient India by Dr. Nareschandra Sengupta whom I had just now the pleasure to admit to the highly prized Degree of Doctor in Law. It is a significant fact that although the Premchand Roychand Research Studentship has been awarded this year to Bimanbihari De

for a thesis on Chemistry, to Girindralal Mookerjee for a thesis on Curves and to Gauranganath Banerjee for a thesis on Hellenism in Ancient India, the Boards of Examiners were embarrassed by the excellence of the work of rival candidates and regretted that they had not more Research Scholarships at their disposal for the benefit of intrinsically deserving students. Investigations like those embodied in the theses I have just mentioned, indicate a high level of intellectual work and cannot be contemptuously ignored. I maintain with confidence that the arrangements we have made to bring the best amongst our students into touch with some of the master minds of Europe, as also the facilities we have afforded to them for research and investigation, have already begun to bear fruit and have been unquestionably justified.

I shall now pass on for a moment to another aspect of our activities, which has recently engaged the attention of our friends quite as much as of our detractors. Reference has been made, sometimes with a feeling of anxiety, sometimes with a feeling of alarm, to the increase in recent years in the number of candidates for various examinations and of those who have successfully sought admission into the University. The view has been expressed that this implies a depreciation of

our standards. Here, again, our critics have reached their conclusion without sufficient data to form the basis of a rational and impartial judgment on the matter. They have forgotten or overlooked the well-known fact that while the standards were raised by the New Regulations, a determined effort was made by the University to improve the agencies for instruction. I find it difficult to appreciate how any true friend of advancement of education in this country can overlook the circumstance that, since 1906, the Schools and Colleges throughout this Province have been re-organised and that in many cases the re-organisation has been of such a fundamental and far-reaching character as to indicate a veritable rebirth of the Institutions concerned. The teaching staff has been improved and strengthened all round, both qualitatively and quantitatively, libraries have been replenished in numerous instances and laboratories have been provided and have been maintained in a state of efficiency unknown to teachers of a former generation. What is equally important, the sizes of our classes both in Schools and Colleges have been rigidly restricted and discipline has been more stringently maintained than ever before. I do not imply that our Schools and Colleges are maintained in a state of perfection ; no one feels more keenly their

deficiencies in many vital respects than I do ; but I do maintain that they are in their present condition far more efficient as agencies for the instruction of our boys and young men than they were eight years ago. Add to this two other circumstances the true bearing of which no educationist of experience will fail to appreciate. Under the New Regulations, our courses of study are of a far more liberal character than they had ever been before ; students are allowed a free choice of subjects and are no longer driven by inflexible Regulations to cram themselves with information upon branches of knowledge for which they have no aptitude. At the same time, our examinations are conducted on more rational lines than before ; candidates are allowed a choice of questions, and papers are framed in most instances, not so much with a view to find out what a student does not know as with a view to ascertain what he does know and for which he is legitimately entitled to credit. On the other hand, we have framed stringent Regulations for the admission of candidates to examinations, and at every stage, from Matriculation to a Degree in the Faculty of Arts or Faculty of Science, every candidate is required to produce a certificate not only to the effect that he has diligently and regularly prosecuted his studies in the Institution which

presents him, but also that he has satisfactorily passed the periodical examinations and other tests and that judged from the work done by him the Head of his Institution is satisfied that there is a reasonable probability of his passing the examination to which he seeks admission. Is it seriously maintained that these certificates, signed by educationists who have been placed at the head of Schools and Colleges throughout the country and in every corner of it, are systematically given as a matter of form and embody untrue statements inserted therein deliberately and without sense of responsibility? I shall not take upon myself the difficult task of making a choice between two disagreeable alternatives,—either these certificates produced by our candidates are deliberately false or they are furnished by educationists without judgment. I will leave it to our critics to make their choice of either branch of this libel upon the earnest and devoted band of teachers to whom has been entrusted the education of our boys in Schools and of our young men in Colleges. I also decline to lend countenance to the charge, sometimes covertly, sometimes half-openly brought that there is a conspiracy amongst all our examiners in every subject at every examination to depreciate the standard. Apart from the inherent improbability of such a combination, I will mention to

you an interesting incident which happened quite recently. One of our well-meaning friends, who has been alarmed at the increase in the number of successful candidates and who apprehended that the result was due to depreciation of standard, was entreated by me to take part in the conduct of the examination for the Degree of Bachelor of Arts. He consented with some hesitation and reluctance, and when the marks awarded by him to the candidates came to be compared with those awarded by his colleagues, it transpired that he had let through nearly twice as many as the most considerate of his fellow-examiners. But, pray do not misunderstand me, I and my friends advocate an elevation of the standard, not merely of examination but also of instruction. We do not desire the circulation of base coin as genuine. We fully appreciate that if our graduates and undergraduates are to hold their own in all the vocations in life and are not to tarnish the fair fame of their Alma Mater, they must be adequately trained. I lay stress, from this point of view, on measures calculated to raise the standard of instruction, and I feel no sympathy with friends and critics whose conscience is satisfied when they hear that thousands have failed at an examination and have been kept out of sight. I feel no admiration for the policy of the ostrich. I

desire to emphasize the urgent need for improvement in methods and arrangements, and I feel convinced that if you train the Indian student properly, he will stand successfully the most searching tests you may devise. Let us, then, not be haunted by anxiety or alarm at the mere increase in the number of students. But let effect be loyally given to the wish nobly expressed by our gracious King-Emperor that there may be spread over the land a net-work of Schools and Colleges. There may be unhappy people who are alarmed at the spread of education, and who frighten themselves with the idea that rapid developments in the field of education as also the promoters of those movements are a menace to the country. Let them remember that it is not knowledge but ignorance, not true instruction but bad education, which fails to build up character and proves a source of danger to the community ; let them realize also that before their narrow views prevail, they will have to take steps to alter the proud motto of this University from the Advancement of Learning to the Restriction of Knowledge.

I trust I may be permitted to add to this rapid survey of the work and events of the last year, a few remarks on specially important features of University policy. In the first place as to our arrangements for Post-graduate

teaching, with which I know fault has been found by some or perhaps many on various grounds. Critics have suggested that at any rate M.A. teaching does not fall within the legitimate sphere of the work of the University, which may be expected to provide teaching of the higher standard—leading up to research—but should leave specific M.A. teaching to the Colleges; and, again, fault has been found with our actual teaching arrangements, our accommodation and like matters, and doubts have been expressed as to the stability of our scheme. That it is just Universities which should undertake M.A. teaching may easily be and has indeed been argued on general grounds: but I prefer to take a more practical line. Our University has come forward to take upon itself an important part of the M.A. teaching in Bengal, because there was an urgent need that it should do so, because there were no other agencies to supply what the times required. You remember that as soon as the New Regulations came to be enforced, the old M.A. Classes vanished and rightly vanished, with a few exceptions, notably those of the Presidency College, for the simple reason that almost all the Colleges were not judged, did not indeed judge themselves, to be in a position to provide M.A. teaching in any way corresponding to the requirements of the New Regulations.

Such was the general state of things in 1906; such continues to be the state of things in 1914. I have neither time nor desire to discuss at length this evident fact. Now, no body I assume will maintain that Bengal is to remain without M.A. teaching. How then is such teaching to be provided? Is the entire task to be entrusted to one institution, let us say the Presidency College which is financially as strong as the Government of Bengal chooses to make it? This is not possible for the very simple and manifest reason that the Presidency College, however well staffed and equipped, can take in only a small fraction of the students who ardently seek for assistance and guidance in the fulfilment of their ambition to go beyond the B.A. stage. Apart from this, the authorities responsible for the maintenance of the College really were exceedingly slow to bring their institution up to the new standards even in a few branches of study. I cannot refrain here from the general observation that it took a long time for educationists to recognise even in this Province that the new Regulations for the M.A. degree prescribed courses of study essentially different from and superior to the old courses. The former M.A. teaching, as we graduates of the older generation knew it, was nothing but a somewhat more leisurely and languid B.A. teaching. The M.A. teaching,

as contemplated by the new Regulations, is at any rate intended to be instruction in a highly specialised department of knowledge. New agencies had manifestly to be created ; and the idea that the University should take upon itself a task to which the Colleges were not adequate presented itself so naturally, so inevitably, that I consider it altogether needless to dwell on this point. It was first thought, at least by many of us, that the University might carry out the new task by a judicious use of existing agencies, that is, in this case the higher sections of the teaching staff of the more prominent affiliated colleges ; in other words, the best B.A. teachers of these Colleges might, it was thought, form in combination a staff of University M.A. Lecturers. Our first tentative steps were in fact dominated by this idea. But this scheme, though attractive to the theoretical eye, soon showed itself to be entirely impracticable. Colleges which can hardly manage B.A. Honours teaching cannot afford continuously to depute their best teachers for M.A. work in the University classes. " An arrangement which depends on the good will merely of a number of independent agents is generally not to be expected to work harmoniously and without constant breaks. It is a most difficult, really impossible, task to arrange a working timetable

when the Lecturers are bound to consult in the first place the interests of their Colleges, not those of the University. Every one may easily work out for himself other difficulties inherent in the scheme. Let me point only to the one further fact that it inevitably excludes from so-called University work the staff and students of all Colleges not situated in one centre, Calcutta in our case. There was no help : the plan of the University M.A. classes, if it was to succeed, at all, demanded the immediate creation of more permanent, more reliable, and more manageable agencies, that is, of a body of teachers who would devote themselves entirely to University work and would have over themselves no other authority but the University itself. The advantages of this plan, indeed, are so patent that, in spite of what I stated just now as to the attractions of the co-operative College system, it would beyond doubt have been suggested and accepted from the very beginning, had it not been for the financial difficulty. Well, we have had fairly good fortune in this respect. The influx of eager and enthusiastic learners into the University M.A. classes has been so great that the teaching department of the University is at present almost self-supporting. This, as our friends apprehend and as our critics inwardly wish, may not last for ever, as our

numbers may fall ; but I venture to declare that an institution of this kind, with so vigorous a life and so undeniably meeting a great want, will in all fairness and according to the principles of educational policy hitherto avowedly followed in this country, be fully entitled to further substantial help from Government, even if its numbers should be one-half or one-third only of what they are now.

We have a very competent staff, both for ordinary M.A. teaching, and, in certain directions, at any rate, for higher developments. That the staff should gradually be strengthened we admit ; this will mainly be a question of means. But meanwhile we claim for ourselves that we do much which no other rival agency could possibly undertake at present. I energetically deprecate the idea that a rigid dividing line may be drawn between M.A. teaching, and certain higher courses of instruction, let us call them research courses. M.A. teaching need not primarily aim at fostering the spirit of original research and investigation ; but it should somehow be imbued with the spirit, so that specially qualified youthful minds may have a chance to catch sparks of its fire. All our students when they take the B.A. degree are past twenty ; it is surely time then that the further courses of study they may

wish to undertake, should possess a genuine academic quality and that they should not be told to stay contented with a mixed up glorified B.A. teaching until they have taken their M.A. degree. The presence and influence of the University Professors should help to impart to our M.A. instruction that peculiar flavour which distinguishes academic teaching from school teaching; and, as a matter of fact, all our Professors do take some part in M.A. teaching, either directly or—as in the case of Dr. Young,—by organizing and stimulating the work of the regular M.A. teachers. Our present accommodation, no doubt, is scanty: the financial difficulty is heavy, and every one knows what serious obstacles beset all attempts at expansion in this quarter of Calcutta. In this point also, we confidently look forward to help—help earned by the courageous attempt to initiate a great new movement under adverse circumstances. And our present accommodation, although, indeed, far from ample, does not at any rate preclude the possibility of useful work. We do not dream of establishing for ourselves a monopoly of M.A. or research teaching. We shall welcome all sound competition: we feel ourselves free from the spirit of jealousy. Other institutions may do work as good as ours: they may possibly even do better work. But I here wish to emphasize two

points. We shall, in the first place, strenuously oppose all attempts that may be made to judge us by standards arbitrarily set up by unsympathetic outsiders. While we readily acknowledge that there may be other ways and methods in the sphere of higher instruction, we claim the right to proceed in our own way, and refuse to be judged on any other ground than that of the ultimate results of our work. In the second place, I do not for a moment hesitate to claim for our scheme and arrangements, necessarily incomplete and imperfect as they at present are, very distinct advantages over any rival scheme and arrangements now in existence. I shall here speak with perfect plainness. I, and I may add with confidence, many of us, do not consider institutions, such as our present Government Colleges, as places likely to develop into homes of true University teaching. I do not mean to ascribe the fault to the teachers who compose the staff of those institutions, many of whom, I know, are men of very high ability. But the conditions under which they work are altogether unfavourable. It will take a long time before the old tradition that the efficiency of a College is to be measured by the results of its B.A. work will pass away : at any rate, the eventual M.A. teachers will continue to be clogged with the responsibilities of heavy undergraduate

teaching. The Principal will continue to be absorbed by administrative duties. But there are even graver difficulties. The career of a Government College Professor offers, in the case of Europeans, at any rate, absolutely no attractions. The position is held in indifferent esteem ; the pay is, according to general Indian views, decidedly mediocre. The Junior Professor, therefore, has as a rule no higher wish than to cease to be a Professor ; he very naturally aims to become, as soon as possible, a Principal, probably in a College outside Calcutta, or an Inspector of Schools with a higher pay than a Professor, or, an Assistant Director of Public Instruction, or if he can manage it, a Director of Public Instruction. Is there, I frankly ask, at the present moment a single Professor in a Government College in Bengal who would not at once—had he the chance—go as Director of Public Instruction to, let us say, Bihar and Orissa, or Burma, perhaps even Assam, giving up without hesitation, although, perhaps, not without a secret sigh, the hopes and ambitions which he may have cherished that one day he may become a distinguished teacher, writer or investigator, in some special department of knowledge ? I would not for a moment blame him for his choice : if, perhaps, not ideal, it is altogether natural, we may say inevitable. But it is

evident that a system which constantly tends to deplete Colleges of the most talented and ambitious members of their teaching staffs and to divert those men into non-scholarly careers, is an effective check on the development of an academic spirit in the higher sense in those Institutions. Altogether different, I trust, will be the conditions in our new University College. Even now, with our very limited means, we have been fortunate enough to attract into our ranks men of high eminence who are contented to stay there, and devote themselves to teaching, writing and research. That they stay with us in a single minded spirit, and concentrate their minds on the interests of the institution and on their own private work directly connected with those interests, is indeed an essential condition of their appointment. We shall no doubt by and by require ampler means in order to attract and retain the most suitable men : we cannot expect that the good fortune which we had in our first appointments will continue. However this may be, I do not despair that we shall bring forward in course of time a new type of men, of true University Professors in the European sense ; and that to such men among us, there will be not denied in the future that position and esteem which they already enjoy in every civilized country except India, is, perhaps, not altogether beyond the scope of hope.

There are two further points on which I venture to claim your attention for a short while. In the first place, I wish to emphasize that the recent new developments of our University must be met by suitable changes in our constitution. I do not touch upon the wider question of a general revision of the Regulations—this was accomplished in the case of the Faculty of Medicine last year, though the orders of the Government of India have not yet been issued, and the proposed changes in the other Faculties will have to be taken in hand before long. But, meanwhile, certain important modifications are urgently needed. A University which has actually widened and changed as much as ours has done within the last few years, manifestly cannot work under rules framed years ago in view of an essentially simpler organization. The question is of a highly complicated character and will require the most careful elaboration. Here I wish to invite your attention to one special important aspect only. We at present employ experts, headed by University Professors, for most of the higher branches of study; that is, we have small bodies of men to whom there must necessarily be assigned a part at least of the functions hitherto exercised by the Boards of Studies elected by the Faculties. Not to do so would be to lay lame the new development in one of its most essential features. To delimitate

the respective functions of the old Boards on the one hand and the new bodies of experts on the other hand, will require a great deal of insight and tact; but certain outstanding features appear to reveal themselves at once. We may admit, I think, that the Senate, composed of men chosen for their general culture and learning and their special knowledge and experience in matters educational, may remain entrusted as hitherto with the function of determining the general courses of study to be followed in our Colleges up to a certain standard, possibly the B.A. standard; for up to that stage, the education and instruction imparted to our students is, on the whole, of a general non-specialised character, and the questions likely to arise in connection with it are of such a kind that a man of sense and culture may be held capable to form a judgment on them. These matters, consequently, may be left as hitherto, to the existing Faculties acting through the Boards of Studies. On the other hand, it is evident—and I wish to emphasize that the view I now advocate, though no doubt rendered clearer by recent developments, is by no means altogether novel, but has since a long time urged itself upon the attention of critical observers of the proceedings of the University—it is evident, I say, that all the arrangements as to the higher specialized courses of studies,

that is, the M.A. courses, the conditions for admission to the Degree of Doctor, and other like matters, should be left entirely and solely to those special experts whom the University entrusts with the task of instruction in those subjects. The University Professor of Mathematics, to take one illustration only, and his helpers, *i.e.*, all the M.A. Lecturers in Mathematics, will, under this system, *ex-officio* determine the higher courses, text-books and methods of examination in Mathematics : they will not require to be elected for that purpose, nor will their privileges in that direction be shared by any one who is not one of the higher Mathematical teachers. The same arrangement will hold good with all branches of higher learning for which the University has special teaching arrangements. These Boards of Higher Studies will be composed not only of University Teachers in the narrower sense but include all the higher teachers in affiliated Institution as well.

There now remains one further topic only, on which I cannot on this occasion refrain from making a few remarks, a topic, indeed, of the deepest importance, which I approach, I will not say with apprehension, but with a very special sense of responsibility. The topic is one which I have not touched in any previous convocation address, although it has constantly

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been in my mind and more than once tempted me to give it utterance. If now I speak out with some measure of freedom, it is because a man, who is about to take leave from an important office, on the one hand may claim certain privileges, and on the other hand feels more strongly than ever the imperative call of duty. The question which agitates my mind is that of the degree and measure of ultimate independent authority which a corporation such as the University of Calcutta is entitled to claim. It is well understood that an Indian University, which is the trustee and guardian of great public interests, is ultimately accountable for all its measures to Government, whether that Government be provincial or supreme. The Universities rest on legislative enactments, emanating from the supreme authority; their functions and duties are defined thereby, and they may legitimately be held accountable to the supreme authority for the way in which they exercise their functions and discharge their duties. Cases are imaginable in which a University might grossly neglect its duties or else take measures directly opposed to great public interests, and thereby might render itself liable to incisive interference, possibly complete suspension of its functions, by the supreme authority. This no body will dispute in an extreme case, in a crisis of a grave nature.

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without imagining crises of so exceptional nature, one may also admit that the supreme authority is, in the interests of the community, entitled, nay bound, to follow with attention the work of the University and, should the public interest clearly demand it, to interfere, possibly with a remonstrance, possibly even with a veto. Cases again may occur, in which the Government are in possession of important information which was not shared by the University authorities at the time when they decreed a certain measure, and in the light of which that measure may appear objectionable or altogether impossible; in such cases, intervention on the part of Government, in some form or other, may possibly be justified. These general principles need not be seriously disputed. The doubts and difficulties begin when we come to concrete cases, and try to define the exact line which separates the sphere within which, what for the sake of brevity I will call Government interference, is justified, from the sphere within which the University authorities, in the interest of efficient discharge of duty, should be allowed absolutely free hand. The task of delimitation, no doubt, presents difficulties; but it cannot be declined. For I do not hesitate to say so—there have been, in the course of the last three years, instances, by no means few, in which the action of the

University has been interfered with which I cannot characterise otherwise as needless.) Let us consider for a moment the lines on which the University is constituted. Ultimate authority in all University matters rests with the Senate. The Senate of the Calcutta University consists of one hundred Ordinary Fellows, of whom eighty are directly nominated by His Excellency the Chancellor. It may be assumed that care and judgment are exercised in the selection of men who are fully fit for their important position, men who have given general proof of capacity and character, and who moreover are specially interested in or acquainted with, the various aspects and problems of education in its different grades. Of the remaining twenty members of the Senate, ten are directly elected by Registered Graduates and ten by the Faculties; and we may hence accurately state that the Senate is practically, that is to the extent of ninety per cent., a body of educational experts nominated by Government. The Syndicate, again, the Faculties, the Boards of Studies are essentially Special Committees elected by the Members of the Senate mainly from amongst themselves, under definite rules sanctioned by the Government. The Vice-Chancellor, the business head of the University, is directly nominated by Government, and every important measure proposed

by the Syndicate requires the sanction of the Senate which, as I have said, consists almost exclusively of nominees of Government. [An evident corollary of the constitution of the University, thus shortly characterized appears to me to be that the University is a corporation, a priori entitled to all confidence on the part of Government and fully entitled to independence of action within its own sphere, a sphere, quite sufficiently limited *ab initio* by University Acts and Regulations, which lay down with great rigour the general lines on which the University has to be managed. But is such independence practically allowed? Far from it, as the history of the last ten years amply proves.) I, on purpose, refer to those ten years, because they represent a period of unusual activity which offered quite special opportunity to test the soundness of the present rules of procedure. To make the situation quite clear, allow me to give a few details, which in this form are not exactly actual but are very fairly representative of the actual.

Let us assume that the Faculty of Arts proposes, the Syndicate assents to and the Senate finally sanctions a motion to the effect that the subject of Comparative Philology should no longer constitute an independent subject for the M.A. Examination, but should be combined with the subject of Indo-Aryan Philology.

With what possible advantage, I ask, can a resolution of this kind be submitted, as it is now required to be submitted, to Government for sanction? Is such a sanction absolutely formal or not? In the former case, let the present rule of procedure be dropped, it encumbers and delays business. In the latter case, may the Secretary of Government, into whose hands the resolution will go, be expected to be an expert on this question as well as on all similar ones? Or, is it desirable that he should be allowed to criticize, eventually to reject, the recommendation made by the best experts of the University, who themselves are Government nominees, on the basis of advice tendered to him by some expert, real or *soi disant*, whom he may have an opportunity to consult on the matter? Take another example. The Syndicate, after long and careful consideration of some question of affiliation, recommends that a College be affiliated to the B.A. Honours standard in a subject. The Senate joins in the recommendation. The Secretary of Government at Simla or Delhi, to whom the recommendation is submitted, objects, perhaps for the reason that the particular Professor who will have to teach the Honours subject, and about whom the Secretary personally knows nothing whatever, has taken only a Second Class in the M.A. Examination. The Syndicate

replies that they have carefully gone into the question, that no first class man is available for the post, that the designated Professor is personally known to the Members of the Syndicate and is judged by them to be fully competent for the work proposed to be entrusted to him. To this the Secretary replies, perhaps, that he is satisfied with the explanation, or perhaps, that he is not. Further correspondence follows; the result is either that the opinion of the fully competent men on the spot is, in the end, accepted after a protracted, vexatious and possibly injurious delay, or, what is equally likely, is rejected by an official whose competence in the question is unavoidably less than that of the Syndicate. Every one acquainted with the history of the University in recent years will remember numerous similar instances. [What I have said suffices, I think, to prove the imperative need of a thorough revision of the present rules and modes of procedure. The University, may justly, in view of its fundamental constitution and character claim a wider scope of independent, untrammelled action than it possesses at present. No University can grow which is not free from all external control over at least the range or the modes or the subjects of teaching. Interference with its liberty, within a certain sphere, is after all injurious to the interests it represents\

if, nothing more, it creates delays and makes the procedure needlessly cumbersome. May I add a little finishing touch to my brief description of the present situation? Is it really necessary, I ask, that when a college applies for affiliation in Hebrew to the B.A. standard, it should, in support of its application, submit to the Syndicate for transmission to Government, a gigantic tabular statement, several yards long, showing in detail the superficial area, correct to the fraction of an inch, of every class room of the College?

Allow me a few further words on a special branch of the general topic with which I am now dealing—on what I may term the financial liberty of the University. The Indian Universities have necessarily ceased to be entirely self-supporting institutions. The new demands made on them by the Indian Universities Act—an Act prompted by the consciousness of the absolute need of such demands,—have deeply affected our financial position. The old situation was simple: we had merely to take care that the fees charged for admission to examinations should suffice for the salaries of the Registrar and his staff, for the charges connected with the examinations (the principal item here was the fees of examiners) and for a number of other kinds of expenditure which may be termed minor. As a matter of fact,

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all this could be provided for on the basis of a system of very moderate fees. But now enormously greater demands are made on us. We are called upon, by the Indian Universities Act, to appoint University Professors, Readers, Lecturers, to establish Libraries and Laboratories, and in general to take whatever steps may be conducive to the furtherance of Learning and Research. All these demands would, it is evident, be futile, mere empty words, if there was no reasonable hope of means which could enable the Universities to cope with their new tasks. Here, claims on the Public Funds are clearly justified; and we gratefully acknowledge that the Government of India, as soon as the Indian Universities Act was passed, not only readily recognised the new situation but came forward as actual helpers. Considerable grants have, in the course of the last few years, been made to the Universities for the general purposes indicated above, and I venture to maintain that the University of Calcutta has made excellent use of the share allotted to it. In addition, we have three University Chairs, for the foundation of one of which we are indebted to the late lamented Lord Minto and for the other two to our present Chancellor. We have thus made a beginning, at any rate, in the sphere of University teaching; but we cannot too

strongly emphasize that it is no more than a mere beginning, and that even to maintain what so far we have established, ampler funds are required in the near future. The main point in this connexion, however, is that whatever financial help we receive, should be permanent or at any rate assured for fairly long periods. To grant funds for a Professorship, with the proviso that the grant may be suspended at any time, implies a practical contradiction; for how can the University attract really good men—such men as are absolutely required if our new scheme is to succeed—unless it can guarantee to them a certain fixity of tenure? The position imperatively demands sympathetic consideration from a truly statesmanlike point of view. We are engaged in a great work: we have had assurances of sympathy and some amount of actual assistance on the part of the Government. Our work will be rendered nugatory, unless we are assured that the sympathy and assistance will be continued. I hardly need elaborate the practical conclusions to be drawn from this short exposition of our situation. But I wish to go further, beyond this short indication of present needs. I maintain that a University, constituted as ours, is composed mainly of a body of nominees chosen by Government presumably because specially

qualified to give advice and direction in all higher educational matters, may very justly claim to be regularly consulted as to its financial needs also. The University is a great public concern, entrusted with the care of public interests of the most vital kind; why should it not be allowed a voice as to what share of the public revenue might be devoted to University purposes? At present, whatever we do, we do in the dark as it were. Grants are made from time to time, fortunately. But on what principle? What steps are taken to ascertain the needs of the University, and to regulate financial help in accordance with these needs? It surely is time to recognise explicitly that under the Indian Universities Act great new functions, great new responsibilities devolve on the Universities, and that decisive steps must be taken to put the Universities in a position satisfactorily to discharge those functions, fully to meet those responsibilities. It is high time that all this should be realized and that suitable action should be taken; the present confused and disheartening position clearly cannot last much longer without serious detriment to the cause of University education in this country.

I make no doubt that the members of this University will understand me, will feel with me, if I state that the present occasion is to me

a moving one, I may say, a solemn one. I have addressed as Vice-Chancellor seven ordinary Convocations before this day. It is now eight years ago that the confidence of the Government of India summoned me to the place and dignity which I shall now relinquish in a few days. Eight years is a long span of time, and as time, is most truly measured by the amount of work that may have been achieved or attempted within it, these last eight years really mean for me a much longer period. For, although I may sincerely assert that, from a very early stage, my life has been an exceptionally laborious one, the period during which I have presided over this University, has made vastly greater claims on my energy and strength than any previous period of the same duration. I need not point out to you that the duties of my permanent judicial office are unavoidably and unremittently heavy; nor need I refer to all those minor—but, in their aggregate, by no means slight—calls on my time and working power, which a man in a certain rank and station cannot decline. Nor need I dwell on the fact that the duties of the Vice-Chancellor of one of the great Indian Universities are not exactly light or unimportant, under any circumstances; even the routine work of an uneventful period consumes much time, and demands a good deal of

patience, if nothing more; and I believe no Vice-Chancellor has ever passed, even through one of the normal terms of office, without an occasional call to grapple with business of grave import and high responsibility. But, in my case, the period of office has not only been unusually long, but it has imposed upon the business head of the University, an absolutely unprecedented burden of toil and responsibility. No doubt, I entered on my University work with a clear discernment of what in general awaited me. I assumed office at a time when, after a strenuous and protracted effort, the Senate had failed to complete the New Regulations required to be framed by the Indian Universities Act, and the first duty devolving upon me was to preside over the deliberations of a Special Committee appointed to frame a complete body of New Regulations for promulgation by the Government of India. The task was onerous in the extreme, notwithstanding the valuable drafts prepared by the Senate as the result of many months of deliberation and in spite of generous assistance of able and experienced colleagues. The next urgent task—a task infinitely more trying than the one first accomplished—was actually to reshape the life and working of the University, on the basis of what had been settled in theory. The task was one

to make even the most courageous and ambitious aspirant to the dignity of Vice-Chancellorship pause and consider. The general aims to be worked for, no doubt, were indicated with sufficient clearness by the Indian Universities Act and by the New Regulations framed in accordance therewith. But masses of details—the order of work, the constitution of new agencies, the modes of procedure and other like matters—had to be determined independently, and it was manifest that the true practical difficulties would reveal themselves only in the course of operations. It would be difficult, hardly possible, in fact, to characterise in one brief sentence all the demands the Indian Universities Act made on the Universities—thorough re-organisation, reform, revolution, each of these terms would, in a way, be justified, but would express one aspect only. But I was sanguine and cheerful at the time: I appreciated the honour of the call to the helm of affairs at so critical a period, and it had always been my ambition to be allowed to do something—something great as I flattered myself in my youthful dreams—for the good and the glory of my Alma Mater. The thought that the opportunity had come delighted me; my imagination was fascinated by the picture of all that might be accomplished, and the idea of great obstacles to be overcome

only heightened my energy. I accepted office.— And then, indeed, there began for me a time of great toil and trouble! Do not, I pray, tax me with undue egotism, if in this part of my address I so frequently have to refer to *myself*, to *my* work, to *my* troubles. My labours and my troubles have been shared by many, and I rejoice in the opportunity now afforded to me to give emphatic public expression to the sincere gratitude I owe to all those individuals or corporate entities—who in the course of the last eight years have co-operated with me so strenuously, willingly sacrificing leisure and convenience. Greatest of all is my debt to that Body which, although not ultimately responsible for the policy of the University, yet shares with the Vice-Chancellor the high responsibility of initiating all important new measures, I mean the Syndicate. Throughout these eight years, with the sole exception of a few weeks' holidays, there has been a long Syndicate meeting on every Saturday—not to mention numerous extra meetings—and on no occasion were we compelled to adjourn owing to the absence of a quorum. Indeed, I have ample reason to felicitate myself on the help of colleagues so nobly, so generously responding to the often rather merciless claims I had to make on them. My debt to them is immense. At the same time, it is a fact that in all the more

important branches of University work, the Vice-Chancellor himself necessarily has to exercise two functions to which the highest responsibility attaches—he has to introduce new important measures, and he has to guide the Syndicate to profitable and if possible unanimous resolutions to be laid before the Senate. These duties are no light ones, even in calm and non-controversial periods, but they become grave, nay formidable, in times of stress, when circumstances demand vital changes and drastic measures, and you all know that such were the circumstances during the last eight years. Reforms of the most incisive kind had to be carried through in every department of University life; demands formerly unheard of had to be made on all who claimed privileges in connection with the University. The mere routine labour to which all this gave rise was, I may truly say, enormous; but what was much more burdensome was the anxiety, the mental distress, unavoidably caused by business of this description. I do not so much mean apprehension and anxiety as to the success of new measures proposed; what I have in my mind rather is the necessity under which the advocate of revolutionary steps sees himself to challenge opposition, to hurt the feelings, possibly of the best of friends, to incur the risk of having his motives and aims misconceived

and misinterpreted, to attack what are called vested rights and traditional privileges. All this distress, all this bitterness, we the working members of this University have tasted in full measure. The last eight years, in truth, have been years of unremittent struggle ; difficulties and obstacles kept springing up like the heads of the Hydra, each head armed with sharp and often venomous fangs. A late lamented member of the Syndicate once very aptly alluded to the toil of the Syndicate and the Vice-Chancellor as truly Herculean. Of myself I may say with good conscience that if often I have not spared others, I have never spared myself. For years now, every hour, every minute I could spare from other unavoidable duties—foremost among them the duties of my judicial office—has been devoted by me to University work. (Plans and schemes to heighten the efficiency of the University have been the subject of my day dreams into which even a busy man lapses from time to time ; they have haunted me in the hours of nightly rest. To University concerns, I have sacrificed all chances of study and research, possibly, to some extent, the interests of family and friends, and certainly, I regret to say, a good part of my health and vitality.) Do not imagine, however, that I repine at the sacrifices made. I have had my reward in many ways. I need not remind you

that great comfort springs from the consciousness of rectitude of purpose, from the conviction that the cause to which one devotes all his strength and for which one renounces the ordinary delights of life, is a high and sacred one. But, in addition, I have enjoyed many bright moments of a more definite character. I have been cheered by expressions of confidence and approbation on the part of successive Chancellors and Rectors, by the sympathy and applause of friends, by a long continued series of successes, and even the constant toil and strife have not been devoid of inspiring effect, for, as you know, there is such a feeling as the 'joy of battle.' Much of those successes was of a merely transient nature, but much also persist, may claim to be called permanent, may imperishable. For it would be false modesty on my part, now I am about to vacate the office of Vice-Chancellor, not to acknowledge that during my term it was given to the Senate, to the Syndicate and to myself, to render to our University services the greatness of which cannot be disputed.* I confess to a feeling of high pride when my thought dwells on what has been accomplished within the last eight years. I will not detain you with anything like a complete enumeration of details and will say nothing as to all those measures, highly important as they were, which aimed

at no more than the reform and improvement of existing agencies and institutions. A higher feeling of pride and satisfaction naturally connect itself with the thought that a considerable portion of what we have accomplished may be designated as a new creation, that we have planned and carried out what had previously hardly been imagined and certainly not attempted either here or in any other Indian University. It is no slight thing to have initiated, at any rate, a comprehensive scheme for the satisfactory housing and the superintendence of the entire student population, a scheme, the fulfilment of which has been unhappily retarded by the lack of needful funds. It is no slight thing to have effected a total reform of legal education in Bengal and to have built up a noble University Law College, where instruction in law is imparted to hundreds of students on a plan infinitely more methodical and comprehensive than anything in the same line ever dreamt of in India. It is a great thing to have found means to open once more, to the gain and benefit of our University, the sources of private liberality which for so many years seemed to have run completely dry. And—here I must confess to a feeling of quite peculiar quality and intensity in which there are blended proud delight, reverential gratitude to divine Providence, a deep sense of obligation

to all our kind helpers from Government downwards—it is a truly great thing to have contributed towards that great widening and raising of the functions of our University which has accomplished itself within the last three years, to have assisted at the birth of the *Teaching University* of Calcutta. As to the history of this great, this epoch-making movement, I need not add anything to what I have said in an earlier part of this address. I realise to the fullest extent how far we are as yet from the complete establishment of those Teaching Faculties which our Gracious King-Emperor, in his reply to our loyal address, pointed out as constituting the most urgent need of our University; but I think we are entitled to feel largely satisfied with the beginning we have made. The gathering of the highest section of our present teaching staff was indeed a laborious and delicate task, but our labours have not been without an ample measure of reward. I rejoice to see the chair of Mental and Moral Philosophy, called after our Gracious Sovereign, filled by my distinguished friend Dr. Brajendranath Seal, who, we all hope, will now find the long desired leisure to give its final form to the great Synthetic System of Thought which he has been silently elaborating during so many years. It fills me with special pride that in Dr. William Henry Young, we

have a Hardinge Professor of Mathematics of the very highest eminence, one of the great leaders in the domain of modern mathematical speculation. It is a source of infinite satisfaction to me that we have been able to engage for the Chair of Ancient Indian History and Culture, associated with the name of His Excellency the Governor, the services of Dr. George Thibaut, a man in whose mind study and reading of the widest extent and continued during a life time, have matured the golden fruit of wisdom, and who is fitted, as few indeed are, to do full justice to all the aspects and phases of Indian life and Indian intellectual development throughout the ages. I congratulate myself and the University on our having prevailed on a man so intimately associated with the development of higher education in Calcutta and so justly revered and loved by many, as Professor Henry Stephen, to undertake the teaching of English Literature in our M.A. Classes, with the collaboration of Professor Robert Knox, a distinguished alumnus of the University of Oxford. I welcome in Professor Hamilton and Professor Strauss worthy representatives of modern English economic thought on the one hand, of the great philological schools of Germany on the other hand. I note with special delight that in the ranks of our M.A. Lecturers also, there are men

so distinguished for powers of original thought as Dr. Syamadas Mookerjee and Dr. Hiralal Haldar, to mention two only of the most brilliant names. I think with pride and deep satisfaction of the new University College of Science, the foundation stone of which is was given to us to lay yesterday, and of the highly competent staff of teachers and investigators who before long will be congregated there,—foremost among them Dr. Prafullachandra Ray, of whom Calcutta, Bengal and India are so justly proud. In addition to all these teachers, permanently attached to us, I recall to your minds the series of European scholars of the highest distinction, who, as Readers of the University, have delivered to our students special courses of lectures—Dr. Felix Schuster, Dr. Gilbert Walker, Dr. Hermann Oldenberg, Dr. Hermann Jacobi, Dr. Paul Vinogradoff and others—the lectures of all of whom have been or will shortly be published by our University. Nor must I forget our Indian Readers and lecturers like those delivered by Babu Dineschandra Sen on the History of Bengali Literature, which also mark an epoch in their way. I may further recall to your mind the series of excellent thesis written in recent years by Graduates of the University for the Degree of Doctor in the several Faculties, for the Jubilee Research Prize and for the Griffith

Memorial Prize. Truly, the signs of the awakening of higher intellectual and scholarly ambitions among our students are not absent; a new spirit is abroad amongst us also. It is evident to me that the educated section of my countrymen is convinced that new intellectual agencies, new organisations for the advance of knowledge, learning and research are an imperious need of the time, that they are satisfied that the University of Calcutta should be the leader in the new movement, and that what so far we have accomplished has their approval and has inspired them with that confidence in our powers and good-will which we require for our further advance. I repeat, the thought of all this is a deep comfort to my soul.

The joy and pride to which I confess are not, however, all unmixed. I too vividly remember, I too intensely feel the after-effects of all the struggles we had to pass through before the accomplishment of our aims, not to feel at times seriously anxious as to the future of what I may call the New University. Though much has been done, more remains to be done, and who know what the future may bring. I at times truly feel like the careworn toiler of the soil, when, on fields first brought under the plough by him, he at last sees the earliest tender green shoots issue from the ground. He dwells in remembrance on the long series of

hard labours he had to undergo in order to carry things so far—the felling of trees, the digging out of stubborn roots and stones, the draining of marshy soil, the clearing of obstructive weeds, and then finally the toils of ploughing and sowing. Now, at last, the first fruits of all this labour begin to show themselves, refreshing his eyes and gladdening his heart. But yet how much may not intervene before full fruition is obtained, before, from the delicate emerald shoots there have risen the serried ranks of rigid ears, each of them proudly balancing at the top its little treasury of golden grains, and, again, how much may not happen before all those precious grains have been safely gathered and stored in barns, ready to supply wholesome food for the cultivator, for his family, for his tribe. Untimely drought may wither the young stalks, storms and rain may beat down the ears, fierce hail may lacerate them, noxious insects may destroy the ripening grain. The cultivator has done his best; he now stands helpless; nothing is left to him, but to hope, to pray and to trust. I repeat, I at times feel like that toiler of the fields.

I too, or let me rather say, we too—I and my helpers—have worked in the sweat of our brows, have spent laborious days and anxious nights; we too have hoped for a glorious harvest, a harvest not palpable but not the

less real on that account, a harvest in the fields of the spirit and the intellect, supplying nourishment which a great people needs, no less than wholesome material bread, pure water, a pure atmosphere. We have prepared the ground and now see the first fruit of our labours. But here also how much may not happen to prevent the full ripening of the harvest. I must admit that when I recall to memory all the difficulties it gave us such heavy trouble to overcome, and when I picture to myself in my imagination all the difficulties that may be set the future path of the University, I have moments of deep anxiety. The steady opposition which we had to face is not yet crushed,—and it is all the more dangerous when it chooses to move in the dark. Sympathy has failed us in quarters where we had a right to demand it, and where we confidently reckoned on it. But more even than well defined opposition and clearly declared want of sympathy, I dread want of fortitude and energy on the part of those who at the bottom view our efforts with approbation, I dread that pusillanimity which shrinks at the first rough collision with determined hostility, that cowardly spirit of compromise which so often induces the weak man to accept a fraction of the reward for which he has hitherto contended, while one resolute step in advance,

one bold thrust of the arm, might have secured for him the whole glorious prize. All these dangers I vividly realise, and hence my feelings are sometimes not unlike those of the husbandman when he sees dark clouds massing on the horizon and hears the muffled sound of distant thunder. To me also, nothing is left but to hope, to pray, to trust.

But far be it from me to close this address of mine on a note of fear and despondency. The spectres of doubt and apprehension which at times crowd round the bravest even, vanish into nothingness when faced with resolution. When all is said and done, there is alive in the depths of my soul the unshakable conviction that I and my helpers have, during these last years, fought a good fight; that the light, which has kept beckoning us onward on our rough and dark path, was not the fitful gleam of a willo'-the-wisp, but the steady radiance of a pure and holy flame for ever burning in a glorious temple however far remote—a shrine dedicated to the worship of Truth and the Ideal. Let us, therefore, advance, the banner of progress in hand, with bold but not unwary steps, drawing confidence and inspiration from the consciousness that so many of the best and truest men of our people are in full sympathy with us; that the rising generation has availed itself with eagerness, nay enthusiasm, of the

new opportunities we have created for higher studies; that the sparks of the new inextinguishable fire kindled in our midst have already leapt to all parts of India, and that the Sister Universities are eager to imitate and emulate what we have boldly initiated. I feel that a mighty new spirit has been aroused, a spirit that will not be quenched; and this conviction, indeed, is a deep comfort to me at the moment when I take leave from work dear to me for so many weighty reasons. The workers pass away; the solid results of their work remain and fructify. I thus bid farewell to office and fellow workers, not without anxiety for the future of my University, but yet with a great measure of inward contentment: and—let this be my last word—from the depths of my soul, there rises a fervent prayer for the perennial welfare of our Alma Mater—for whom it was given to me to do much work and suffer to some extent—and of that greater parental divinity to whom even our great University is a mere hand-maiden as it were—my beloved Motherland.

UNIVERSITY CONVOCATION.

6th January, 1912.

ADDRESS TO

THEIR MOST EXCELLENT AND IMPERIAL
MAJESTIES THE KING EMPEROR AND QUEEN
EMPRESS.

May it please your Majesties,

It is with feelings of the deepest devotion and loyalty that we, the representatives of the University of Calcutta, avail ourselves of the high privilege of approaching your Gracious Majesties with an address. With all Indians we share the enthusiastic gratitude due to the great Sovereign and his Consort who have vouchsafed to give to their affection and regard for our beloved country the most powerful and eloquent expression by coming to celebrate in India at our old Imperial city, the Coronation which took place in London last June. In addition we, the members of the Calcutta University, remember with special pride and gratitude the time, now six years ago, when Your Imperial Majesty, then Prince of Wales, graciously consented to join the ranks of our Honorary Doctors of Law. Nor do we fail to recall to mind the occasion when Your Gracious Majesty's august father, King Edward VII

of revered memory, conferred on the University a similar high honour and thereby inaugurated a connexion between the Royal House and our University which, we are proud to think, thus already possesses an hereditary character.

We, however, on the present auspicious occasion, may perhaps venture to claim that we represent not the University of Calcutta only, but the entire body of the Indian Universities, and taking an even wider view of the situation, that entire, ever-increasing, section of the Indian people which has had a University education. In this widely representative capacity we humbly crave leave to give expression to a special feeling of gratitude. The inestimable advantages and blessings, for which India is indebted to its connexion with Great Britain, are of so manifold a nature that we cannot undertake even to touch on them as a whole; but there is one boon, and this surely one of the greatest, to which the representatives of the Universities feel entitled, nay bound, to refer specially—we mean the access, which the union of the two countries has given us, to the priceless treasures of modern western knowledge and culture, literature and science. We Indians no doubt look back with pride and reverence to what, in the days of old, our forefathers accomplished in the fields of thought

and knowledge; but we at the same time fully realize that, in order to advance the greatness and happiness of our country and to re-conquer for it an honourable place among the great progressive nations of the world, we must, in the first place, strenuously endeavour to arm ourselves with all the knowledge, all the science, all the skill of the West. When, therefore, appearing before our Gracious King-Emperor, who symbolizes to us in his own person as it were the happy union between Great Britain and India and all the blessings springing from it, we, the representatives of the Indian Universities, feel strongly urged to give expression to a feeling of deep gratitude—gratitude to Providence for the kind dispensation which has tied the fates of India to those of a western country so advanced and enlightened as Great Britain,—gratitude to our Rulers who long ago initiated and ever since have adhered to a far-sighted and sympathetic policy of public instruction and education, through the beneficent action of which the light of modern knowledge is gradually spreading through the whole length and breadth of the land. And with this expression of gratitude it behoves us to couple a further assurance. We humbly request permission to assure Your Gracious Majesties that the Indian Universities, which are the leaders in the great intellectual

movement that at present is reshaping India, are vividly conscious of the very weighty responsibilities which this their place and function impose on them. They realize that it is their duty not only to promote and foster but also to guide and control the country's advance on the paths of enlightenment and knowledge, and to provide safeguards as far as it is in their power, so that the enthusiasm which a sudden widening of the intellectual horizon is apt to engender in youthful minds may not tend to impair or weaken those great conservative forces without the constant silent action of which no nation can achieve true greatness and well-being—the forces of respect for order, reverence for law and good custom, loyalty to established authority. We venture to assure Your Gracious Majesties that the Indian Universities, while ambitious to be leaders in a boundless intellectual advance, are no less anxious to act as centres of stability—moral, social and political; that they will ever view it as a supreme duty to strengthen the bonds which connect India with Great Britain and the Royal House; and that they rejoice in the thought that it may be given to them to contribute their share towards the successful accomplishment, under Providence, of that great task which the world-wide British Empire has taken upon itself for the good of Humanity.

[His Majesty replied as follows :

“I recall with pleasure the occasion on which, six years ago, I received from the University of Calcutta the Honorary Degree of a Doctor of Law, and I am glad to have an opportunity to-day of showing my deep and earnest interest in the higher education of India. It is to the Universities of India that I look to assist in that gradual union and fusion of the culture and aspiration of Europeans and Indians on which the future well-being of India so greatly depends. I have watched with sympathy the measures that from time to time have been taken by the Universities of India to extend the scope and raise the standards of instruction. Much remains to be done. No University is now-a-days complete unless it is equipped with teaching faculties in all the more important branches of the sciences and the arts, and unless it provides ample opportunities for research. You have to conserve the ancient learning and simultaneously to push forward Western science. You have also to build up character, without which learning is of little value. You say that you recognise your great responsibilities. I bid you God-speed in the work that is before you. Let your ideals be high and your efforts to pursue them unceasing and, under Providence, you will succeed.

Six years ago I sent from England to India a message of sympathy. To-day in India I

give to India the watchword of hope. On every side I trace the signs and stirrings of new life. Education has given you hope ; and through better and higher education you will build up higher and better hopes. The announcement was made at Delhi by my command that my Governor-General in Council will allot large sums for the expansion and improvement of education in India. It is my wish that there may be spread over the land a net-work of schools and colleges, from which will go forth loyal and manly and useful citizens, able to hold their own in industries and agriculture and all the vocations in life. And it is my wish, too, that the homes of my Indian subjects may be brightened and their labour sweetened by the spread of knowledge with all that follows in its train, a higher level of thought, of comfort, and of health. It is through education that my wish will be fulfilled, and the cause of education in India will ever be very close to my heart.

It is gratifying to me to be assured of your devotion to Myself and to my House, of your desire to strengthen the bonds of union between Great Britain and India, and of your appreciation of the advantages which you enjoy under British Rule. I thank you for your loyal and dutiful address."]

UNIVERSITY CONVOCATION.

26th December, 1913.

ADDRESS TO LORD HARDINGE.

May it please your Excellency,

In availing ourselves of the privilege, graciously accorded to us, of approaching your Excellency with an address of welcome, we, the Members of the Senate of the University of Calcutta, feel urged before everything to give expression to the deep heart-felt satisfaction which we experience in once again seeing before us our beloved Viceroy restored to full health and strength. We are unwilling to refer to the disastrous things that have happened since your Excellency last presided at a Convocation of ours: let not the dark shadow of what now is past and overcome intrude upon the bright present! But we think it right and proper to give on our part some brief expression to feelings which connect themselves with those sad occurrences. We feel devoutly grateful to a benign Providence which has preserved to us a life of inestimable value and has mercifully saved India from what might have become an indelible stain on her fame. And our hearts are filled with the deepest admiration of that wonderful strength of mind which during a long period of severe

suffering never failed your Excellency, of that high magnanimity which prompted you, in the midst of great anguish of body and mind, to declare that nothing would ever shake your firm resolve to devote all your powers to the furtherance of India's welfare. These are imperishable memories, indeed, and associated with them there will for ever dwell in India's mind the image of your noble consort supporting you in darkest moments with such heroic fortitude, such incomparable self-control. The spectacle of a great calamity being borne and conquered in so grand a spirit not only endears the sufferers to the people's hearts; it also tends powerfully to strengthen their confidence and pride in their rulers, and thus serves to draw closer the bonds of a reasoned loyalty.

But we owe a more special welcome to your Excellency as the Chancellor of this University. We remember with sincere gratitude the help which we so far have received from your Excellency, and we cherish the confident hope that such help will not fail us in the future. Our University continues to be in the throes of a deep and far-reaching transformation, a transformation moving on lines explicitly indicated by the Indian Universities Act, and moreover unmistakably and forcibly suggested by the actual needs of Calcutta and Bengal in

the sphere of higher post-graduate teaching. We need not state details with which your Excellency is fully acquainted ; all the progress made so far would indeed have been impossible had we not enjoyed the good fortune of working under a Chancellor so keenly aware of the demands of the time and animated by so sincere a sympathy with the intellectual aspirations of the people. A beginning has been made under the most favourable auspices, but the main part of the work remains to be accomplished and to that end the constant co-operation of Government will be absolutely indispensable. We here have in view, not only financial assistance, though this is no doubt the most urgent and patent want of the moment, but also that co-operation which depends on the free going out of sympathy and the full hearted approval of aims and ideals. Co-operation of this kind is needed not only for the direct furtherance of our undertaking, but also to impress on the community at large the importance of the work in which we are engaged and the confidence that it will be steadily continued and carried on to ever higher issues. The aims of the present University movement are strictly academical : we desire to promote among our countrymen higher intellectual culture and the love and pursuit of learning and research. But at the same time we are fully aware that any

advance in knowledge cannot fail to have wide-reaching effects extending far beyond the sphere of the pure intellect, and we trust that the new University for which we are working will, under wise and cautious guidance, prove powerfully instrumental towards the general moral, social and economic progress of the people of Bengal, perhaps the whole of India. It is the consciousness of the mighty interests involved, of our high aims and correspondingly high responsibilities, which urges, nay compels us, to claim the assistance—assistance in the fullest sense of the term—of our Chancellor and the Government of India. The foundations have been laid under your Excellency's auspices, and it is our fervent wish that before the time will come when you may have to bid us farewell, the new structure may have risen to a stately height, standing before the world as a recognised centre of high intellectual activity.

ASIATIC SOCIETY.

7th February, 1906.

Gentlemen,

During many years past, it has been the established practice for the President of our Society to deliver an address on the occasion of the Annual Meeting. Such addresses have varied widely in scope, but many of them have, from time to time, reviewed the work of the Society, and the progress of literary and scientific research in connection with questions which have engaged the attention of our members. On the present occasion, all of us had hoped to listen to the eloquent words of His Honour the Lieutenant-Governor, and to benefit by his kindly advice and encouragement. But public business of a pressing character has kept him away, and no one, I know, regrets his absence more keenly than His Honour himself does; our rules, however, are unfortunately so inelastic that the dates of our meetings cannot be altered so as to suit the convenience even of our President. It is, therefore, by an accident that I find myself called upon to take the chair this evening, and the time at my disposal since I have had an intimation that I should have to do so, has been so limited as to make it impossible for me to attempt an elaborate review of

the work of the Society during the year 1905, and of the progress of the researches in which the Society is interested. I must consequently crave your indulgence for confining my remarks to a few points of special interest and importance.

During the last year, the material prosperity of the Society has been satisfactory, and the number of members on our rolls now exceeds what it has been in recent years. But we have lost, during the year, one of our most distinguished Past Presidents, who was originally one of our life-members and subsequently an Honorary Member. A full account of the scientific work of Dr. W. T. Blanford, who passed away, full of years and honours, on the 23rd June, 1905, is contained in the obituary notice contributed by Mr. Holland, which will be published in our Proceedings ; but his services to the Society were so conspicuous that they demand more than a passing reference on the present occasion. He joined the Society in 1859, and the number of papers he had contributed to our Journal and Proceedings between that date and 1883 exceeds seventy. I make a pointed reference to this fact because, if the Society is to flourish and maintain its reputation as a learned body, it can only be by the publication of original contributions of its members. The researches of Dr. Blanford related

principally to Geology and the cognate branches of natural science, namely, Geography and Zoology, but it must not be supposed that they recorded merely details of observation, for many of them treated of the fundamental principles of Geology and Zoology and are rightly regarded as classical memoirs in the history of those sciences. Reference may specially be made to his remarkable address to the British Association at Montreal in 1884, delivered as President of the Geological section: and his equally important address to the Geological Society of London when he was its President five years later. In the first of these addresses, he demonstrated the truth of Huxley's Theory of Homotaxis, in the descent of isolated *faunas* and *floras*, and in the second he strengthened the theory of land connection in former times in certain cases across what are now broad and deep oceans. These generalisations were the result of inferences drawn from a mass of details indicating the accuracy which always characterized his work. No better illustration of this remarkable accuracy can be mentioned than his Geological maps of the coal-fields, which, as Mr. Holland observes, have always been and still are the guide of colliery managers. It is impossible, I think, to estimate too highly the practical utility of these maps in exploring the mineral resources of the

country. I do not use, therefore, the language of mere platitude when I say that, by the death of Dr. Blanford, we have lost from our ranks a man remarkable for his scientific attainments and for his contributions to the advancement of science, and that the members of this Society will fail in their duty if they do not raise in his memory a suitable memorial in this hall.

I shall turn now to the work of the members of the Society during the last year, but before I deal with it, some reference is necessary to what appears to me to be the most important event of the year from the point of view of oriental research and scholarship. Members of the Society are no doubt aware that a large number of valuable manuscripts and books were brought from Tibet by the late Tibet Mission, which are now deposited in the British Museum in London. If I am not very much mistaken, the materials thus placed at the disposal of scholars are calculated to throw light upon some of the darkest corners of Indian history and antiquities. That such a result is more than likely will be obvious, if we remember what intimate relation subsisted at one time between Tibet and India, the birth-place of Buddhism, and to what extent the literature of Tibet has been influenced by the literature of India. It is well known that the two chief periods in the history of the literature

of Tibet are the period of translations extending roughly from the seventh to the twelfth century of the Christian era, and the period of original composition extending from the thirteenth century to the present times. In the first of these periods, the Tibetan monks were principally engaged in enriching their literature by faithful versions of many of the great books of Sanskrit literature. The course which the secluded monks of Tibet pursued was somewhat similar to what was followed in Rome, when Greek authors were freely copied by the dramatists of the Republic; and in England, when the great translations which form a remarkable monument of English literature, were made during the Tudor period. Now it has so happened in the case of Tibetan literature that although the Sanskrit originals have been, in many instances, lost in course of time in this country, the translation and in some cases the original itself has survived in Tibet. As one illustration, mention may be made of the *Avadana Kalpalata* of Kshemendra, no manuscript of which could be traced in this country; indeed, it was supposed to have been lost, but was recovered in Tibet, in original, with a Tibetan version. The publication of this work was undertaken some years ago by our Society, and although some progress has been made, it has remained in abeyance by reason of the

death of one of the editors. If one wishes to find a parallel to an incident of this description in the history of modern literary research, one must travel to Egypt, which has given back to Europe some of the most exquisite products of the Greek intellect, the fragments of Bacchylides, the Mimes of Herondas, and the long-lost work of Aristotle on the Constitution of Athens. It is obvious, therefore, that a wider knowledge of Tibetan literature, specially of such portions of it as are translated or mainly founded on Sanskrit literature, must throw considerable light on the latter, either by giving us back books which have been lost in this country or by enabling us to determine with some approach to certainty, the original forms of works which, as they now stand, are believed on good grounds to be full of later interpolations. It has been generally supposed that the literature of Tibet is mainly, if not entirely, Buddhistic; this, however, is erroneous because the Tibetans possess translations of Kalidas's Meghduta, Vararuchi's Satagatha, Rabigupta's Aryakosh, Valmiki's Ramayana, Vyasa's Mahabharat, Chanakya's Nitisastra, Dandi's Kavyadarsha, Panini's Vyakarana, Chandra Vyakarana, Pramanasamuccaya of Dignaga, and various other works including several, the originals of which cannot be traced in this country. It looks, therefore, as if the most

profitable course which a serious student of Indian antiquities may pursue is to take himself to the study of Tibetan and a minute examination of the manuscripts at our disposal, beginning with those which were brought nearly eighty years ago by Mr. Hodgson while Resident at Nepal and ending with those brought last year by the Tibet Mission. Of the manuscripts brought by Mr. Hodgson, those known as the Kangyur, consisting of a hundred volumes, are deposited in our library, while those known as the Tangyur, consisting mainly of non-Buddhistic Sanskrit works and extending over two hundred and twenty-five volumes, were deposited in the India Office, London. Only a small fragment of these has, up to the present moment, been worked through by scholars, and as regards those brought by the Tibet mission, they have not yet been completely examined and catalogued. But an inkling of what rich harvest is in store for us may be obtained from one or two recent instances. Thus the Tibetan translation of the logical work of Dignaga, which must be placed in the front rank of works on modern Nyaya, but the original of which is not available in this country, enables us to trace the history of the rise and development of this branch of Hindu Philosophy. I need only refer to the scholarly paper on the subject by Mahamahopadhyaya

Satis Chandra Vidyabhusana, published in the November number of our Journal. Another valuable paper from the same learned member, which opens the first volume of our new series of Memoirs, indicates how additional light may be thrown on the somewhat obscure problem of the progress of Tantricism by an intelligent study of Tibetan scrolls and images. The existence of the Tantra Sastras may thus apparently be traced at least as far back as the 6th century A.D., and the question may ultimately arise whether the credit or discredit of founding that system and its attendant practices may not have to be shared by the Buddhists along with the Brahmins. It would be a mistake, however, to suppose that the only department of knowledge which is likely to be benefited by an examination of Tibetan books and manuscripts is the domain of Sanskrit literature; if from Tibetan sources we are likely to be in a position to determine with some precision the early form of books like the Ramayana and the Mahabharata, there can be no reasonable doubt that a somewhat similar result must follow in the case of Pali literature as well. It has been usually supposed hitherto that no Pali books were ever translated into Tibetan, and that the Tibetan monks confined their attention to versions of Buddhistic works written in Sanskrit. It now turns out, however, that almost the

entire Pali Tripitakas are preserved in Tibetan in translations. It is difficult to say whether the translations were made direct from Pali into Tibetan, or, as seems not unlikely, the Pali texts were first translated into Sanskrit and then into Tibetan. The Sanskrit versions, however, are extremely rare. Scholars interested in Pali literature must consequently turn to Tibetan sources to determine to what extent interpolations have been introduced by the Buddhists of Ceylon and Burma into their religious books. Under these circumstances, I trust the case is not put too high in favour of Tibetan studies, when it is maintained that they are likely to open up sources from which considerable light may be expected upon the history of Sanskrit as well as Pali literature.

Amongst the papers published in our Journal and Proceedings and in the new series of Memoirs, there have been several contributed during the last year which may be regarded as of more than average interest and importance. Babu Ganga Mohan Laskar, a young epigraphist of talent who made a special study of the epigraphy and palæography of Northern India as a research scholar under the Government of Bengal, and who has prepared a complete concordance to the Inscriptions of Asoka, contributed a note on four new copper-plate charters of the Somavansi Kings of Kosala.

These charters, written in characters of the 10th century, refer to a dynasty of four kings who reigned for ever half a century. They were called Trikalinga Adhipati and their dominions included Tosali, which the writer corrects into Kosala. I am not quite sure that this emendation is well founded ; and it has been suggested on good grounds that the place may be Dhauli, near which there is an inscription of Asoka addressed to the officers of Tosali. Babu Monmohan Chakravarti furnished an edition of the Pabanduta, which was first brought to the notice of the Society in 1898 by Mahamahopadhyaya Haraprasad Sastri. The work appears to have been written by Dhoyika, one of the court poets of Lakshman Sen, the last Hindu King of Bengal. Pandit Yogesa Chandra Sastree discussed the question of the identity of the Prime Minister of the same king, Halayudha, the author of Brahmana Sarvasa. Mahamahopadhyaya Haraprasad Sastri contributed a paper on the history and development of the Nyaya Philosophy, which must be regarded as one of a highly controversial character. It is well known that the Nyaya Sutras, attributed to Gautama or Akshapada, have been studied in this country with the aid of the Vasya, the Vartik and other commentaries by eminent Sanskrit writers. Hindu Logic, however, has travelled to China and Japan, and there it has been

studied for centuries on somewhat different lines, as the students there start with Dignaga as the last of the great writers on Logic in India. The work of Dignaga was translated into Chinese about the middle of the 7th century by Hiouent-siang; and two of his disciples, one a Chinese and the other a Japanese, wrote great commentaries on it. The history of the introduction of Hindu Logic into China and Japan is a subject of abiding interest, and was examined recently by a distinguished Japanese scholar, Mr. Sugiura, in a thesis presented to the University of Pennsylvania. We have, therefore, from Chinese and Japanese sources, Hindu Logic as it existed in the beginning of the 7th century, and on that foundation Pandit Haraprasad Sastri has set himself to investigate the original form of the Nyaya Sutras. His conclusion is that the work is not homogeneous but consists of three independent treatises on Logic and three independent treatises on Philosophy. He maintains that the system was originally Hindu, dating back to pre-Buddhistic times, that it was modified by an infusion of Buddhistic ideas and subsequently altered again by the Saivas. The question, as I have already indicated, is one of great difficulty, and inferences, when they are drawn largely from internal evidence, have always to be accepted with caution. I trust the problem

will engage the attention of other members of the Society, but unfortunately we have none who is qualified to approach the subject with a firsthand knowledge of Chinese, Japanese, and Sanskrit.

Tibetan and Pali Scholarship are well represented in the contributions of Rai Sarat Chandra Das Bahadur, and Mahamahopadhyaya Satis Chandra Vidyabhusana. The papers contributed by the former cover several centuries of the history of Tibet, and in addition to an account of the various monasteries in Tibet and the rise of different sects of Buddhism in that country, throw considerable light upon the external history of Tibet in its relations with Mongolia and China. Professor Satis Chandra's papers, to two of which I have already referred, bear testimony to his acquaintance with Pali and Tibetan. His paper on Anurudha Thera, who was born at Kanchi and whose chief work was done at Tanjore and Tinnevely, shows that Buddhism lingered in the great cities of Southern India as late as the 12th century A. D., and that Pali used to be studied even up to that time. His other paper on Dignaga, to which I have previously referred, enables us to fix the end of the fourth century as the time when that great authority on Indian Logic flourished, and this conclusion agrees substantially with that of Mahamahopadhyaya Haraprasad Sastri,

who placed him in the fifth century and varies slightly from the result obtained by the Japanese scholar Takakusu, who, in a powerful article on Vasubandhu, contributed to the Royal Asiatic Society of London last year, fixed the period in the sixth century.

Apart from these papers, which are more or less of a philological character, the number of papers dealing with historical problems has been unusually limited. Mr. Irvine gave us a further instalment of his exhaustive monograph on the Later Moghuls, while Mr. Beveridge brought to light some interesting facts about the Emperor Babar, not mentioned in Abul fazl and overlooked by Erskine. It must be conceded, however, that the history of the Mahomedan period deserves greater attention at the hands of our members.

In the department of the physical and natural sciences, we have had ample indication of activity on the part of our members. Botany is represented by further work on the Flora of the Malayan Peninsula by Sir George King and Mr. Gamble. Dr. Annandale's Zoological contributions include papers on Indian snakes describing the additions made to the collection in the Indian Museum, and on the lizards of the Andaman Islands. Chemistry is represented in two interesting papers, one on Sal Ammoniac by Mr. Stapleton, and the other on

Alchemical Equipment in the 11th century by Mr. Stapleton and Mr. Azoo. In the first of these papers an attempt is made to carry back the history of Sal Ammoniac through Mahomedan times and to throw light on the primitive conceptions of nature which led to its introduction as an alchemical drug. The paper is of value as illustrating the close relation between animistic theories and the first germs of physical science in the East. The second paper is mainly historical in character and embodies an analysis of an Arabic treatise on Alchemy composed towards the beginning of the 11th century A. D., which shows the great importance attached to weights in chemical operations, seven centuries before the age of Black and Lavoisier. In Geology, we had a valuable note from Mr. Silberrad on the chemical analysis of clay found in Bundelkhand and an extremely instructive lecture by Mr. Holland on the Kangra Valley earthquake illustrated by a series of lantern slides. Finally, we had from Major Rogers an important paper on fevers in Dinagapore, followed by a very suggestive lecture on Calcutta fevers.

In the department of Anthropology, although we have had important contributions to local folklore and ethnology, I am afraid it would be difficult to say that it has aroused as much interest as its nature and importance

would justify. In connection with this subject, our Anthropological Secretary, Dr. Annandale, has made an important suggestion which, when it is carried out with the co-operation of our members, will, I trust, promote and popularise its study. The proposal is to publish in our Memoirs a series of papers entitled "*Miscellanea Ethnographica*" giving illustrations and descriptions of implements, utensils, apparatus, weapons and the like from different parts of India and the neighbouring countries. The scheme is one of great practical importance, because, if realized, it will help to bring together and preserve a mass of scattered knowledge which would otherwise be probably lost. Very little information is available regarding the distribution, uses, and manufacture of the common implements of the people, specially the apparatus used by different tribes and castes in agriculture, hunting and other pursuits of daily life. It is a great mistake to suppose that specimens of these are of value only if they are objects of rarity or artistic workmanship. It is equally erroneous to hold that such specimens are of value only if they are habitually used by primitive races in the lowest scale of civilization. The truth is that these implements of daily life, if properly studied, furnish an excellent guide in the examination of the growth of human intelligence. It is

essential therefore that such specimens should be collected, classified and studied, before they disappear in the face of the European or semi-European methods and implements which are fast making their way in many directions. Dr. Annandale has recently given us illustrations of the work, which may usefully be taken up in this direction, by exhibiting to members of the Society the use of the Blow gun in Southern India and the Malayan Peninsula, and the use of peculiar types of weighing beams in different parts of Asia, closely analogous to what prevails in Europe and is there traceable to Scandinavian influences. The subject is obviously one of great interest and importance, and I trust it may engage the attention of some of our members.

During the last year, the publication of Oriental works and their translations in the series known as the "Bibliotheca Indica" has been carried on with more than usual zeal and activity. As a result, not only has the surplus in this fund been exhausted, but the Society has found it necessary to contribute temporarily a sum of Rs. 2,000 to meet the expenses for work already done. There will consequently be a reduction in the number of works to be published in the course of the present year, and the Council have decided that, in future, a complete list of the works which may be undertaken

in the course of any one session, must be definitely settled and budgeted for in advance. Of the works which have been published during the year in the "Bibliotheca Indica," an account has been given in the report submitted to you this evening. I would only invite attention to the completion of the English version of the "Markandeya Purana" by Mr. Justice Pargiter. The learned translator has furnished an elaborate introduction in which he shows that the work was composed at two widely distant periods, one probably some centuries before the beginning of the Christian era, and the other some centuries after it. The approaching retirement of Mr. Justice Pargiter cannot fail to be a source of sincere regret to every member of this Society, and the regret is deepened by the fact that there are few, if any, amongst the junior members of the distinguished service to which he belongs, who are qualified to take his place in the field of Oriental scholarship. Another work which was completed during the year and which deserves special mention is the Persian version of Morier's Haji Baba by Shaik Ahmad of Kirman, upon which Major Phillott had been engaged for some time past. It may no doubt be said that in undertaking the publication of this work, the Society has departed from its hitherto invariable practice of publishing only classical Arabic and Persian

works. The work, however, furnishes so good an example of modern Persian, and is so truthful a picture of the manners and customs of the people, that its inclusion in our list of publications is amply justified. The value of the edition has been greatly enhanced by the notes of the editor, in which all the slang terms and colloquialisms not found in the dictionaries are lucidly explained.

There are two other topics to which I shall like to invite your attention before I bring my address to a close. During the year which has just ended, considerable progress has been made in the search for Sanskrit manuscripts, as also in the search for Arabic and Persian manuscripts. So far as the search for Sanskrit manuscripts is concerned, which was conducted under the supervision of Mahamahopadhyaya Haraprasad Sastri, the progress of the operations during the year is marked by three important events. The first is the publication of the Catalogue of Palm-leaf and selected paper manuscripts in the Durbar Library in Nepal. The second is the report submitted to Government on the progress of the search during the last five years. The third is the acquisition of about twelve hundred Jain manuscripts for which the Government of India made a special grant of Rs. 5,000 to the Society. The Catalogue as also the Report contains valuable

information upon Tantri literature, and they have been received with considerable interest by European scholars. The Jain collection has only been recently acquired and has not been yet completely catalogued, but so far as can be judged from the materials at our disposal, even these works may throw some light upon Tantric lore. We have thus accumulated a mass of material which is of the highest value in examining the political and literary condition of Eastern India for several centuries, as also in studying the evolution of the doctrines which lie at the foundation of our Tantras.

As regards the search for Arabic and Persian manuscripts, which was conducted under the supervision of our Philological Secretary, Dr. Ross, the success has been still more remarkable. The total number of manuscripts purchased up to the middle of October last was about seven hundred, and you will be able to appreciate the value of the collection when I tell you that manuscripts of great rarity have been acquired from different parts of India, such as Lucknow, Delhi and Hyderabad, as also from two valuable collections which were brought by two Arabian travellers. The books represent almost every branch of Oriental literature, and as many as eighty of these are unique, giving us works of ancient and modern authors which are not even mentioned in any of the European

Catalogues. As regards the age of these manuscripts, a sufficient indication is afforded by the fact that at least a hundred of them range in date between the thirteenth and the fifteenth centuries. Dr. Ross has been able to secure autograph copies of the works of about sixteen authors, some of which bear the original corrections and marginal notes of the authors themselves, while the interest attaching to others is enhanced by the fact that they bear upon them lines from the pen of eminent scholars who flourished during the fourteenth and fifteenth centuries. Amongst the most important of the additions made to the collection during the year, I may mention specially a work written in the fourteenth century by the Spanish Vizir Lisanuddin, which gives biographical notices of all the Moorish poets of the eighth century of the Mahomedan era. We have also secured an important book on tradition written by Yusoof bin Abdur Rahāman in A.D. 1341, which enumerates all the traditions and sayings of the Arabian Prophet, arranged in such a manner as to indicate at a glance how many traditions have referred to each traditionist. In addition to these we have secured the manuscript of an important work called "Rubab Nama," by the son of Jelaluddin Rumi, the greatest Sufi poet of Persia. When we add to these the valuable history of authors

of the sixth century of the Mahomedan era compiled by Ispahani in the beginning of the thirteenth century A.D., we ought to be able to realize the value and the importance of the materials at our disposal. Our first duty is to undertake an examination of this collection and the preparation of proper catalogues. Our next duty would be the publication of some of these unique manuscripts and make them available to scholars all over the world. If we neglect the duty which has thus been cast upon us, we may rightly be likened to those unhappy beings who will hoard their wealth and neither use it themselves nor allow others to be benefited by it. From the generous aid which the Government of India has already given to us, we may legitimately expect that the Government will not be slow to render assistance if the work is undertaken and systematically carried on by competent scholars under the supervision of the Society. The past history of the Society, however, makes it painfully clear that, while the interests of Sanskrit learning have been carefully watched and nurtured, the interests of Arabic and Persian Literature have, of late years, been sadly neglected. In this department at any rate we have distinctly lost ground since the days of Sprenger and Blochmann; and I trust that under the guidance of Dr. Ross, whose devotion

to these studies is well known, a serious effort will now be made to retrieve our reputation in this direction.

I have now given you a brief, and, I am afraid, a very imperfect account of the work done by the Society during the last year, and I have ventured to indicate some of the directions in which research may be profitably carried on. Our illustrious founder defined the bounds of our investigation to be the geographical limits of Asia, and he sought to include within the scope of our enquiries whatever is performed by man or produced by nature. It is manifest that although our Society has been in existence for about a century and a quarter, the field of investigation has been by no means exhausted. True it is that we are no longer in a position to repeat the triumphs of the early years of our existence when Sir William Jones discovered Sanskrit and James Prinsep deciphered the edict of Asoka. Yet the problems in oriental scholarship, both literary and scientific, which still await solution, are so numerous and so fascinating, that I cannot conceive any adequate reason why our Society should ever languish.

ASIATIC SOCIETY.

5th February, 1908.

Gentlemen,

It is not incumbent on your President to deliver an address at the end of the first year of his term of office, and if I had kept silent on the present occasion, I would have followed weighty precedents. I have been unwilling, however, to meet you this evening without supplementing the annual report which has been laid on the table and making some reference to the researches in which members of our Society have been engaged during the past twelve months. I do not propose to enter into any elaborate review of the work of the Society, nor of the progress of the different branches of research with which our Society deals; such a review may more fittingly be made at the next annual meeting, when we shall complete the first quarter of the second century of our existence. But before I deal with the subjects which have engaged the attention of our members during the last year, I would like to make a brief reference to more homely matters. The report which has been laid on the table shows, as you have all been gratified to find, that the number of our members has been steadily increasing in

recent years. In fact, in the course of the last five years, our members have increased by very nearly one hundred. This is a matter for congratulation, and our thanks are due principally to the members of the medical profession who have joined our ranks and swelled our numbers. During the last twelve months, however, we have lost from our ranks seven Ordinary Members, two of whom deserve special mention.

Lieutenant-General Sir Henry Edward Landor Thuillier joined the Society so far back as 1847, and at the time of his death, had been a member for over 60 years. At one time, before his retirement from the country, he took considerable interest in our work, and contributed to our Journal and Proceedings a number of valuable papers on "Meteorology" and the "Survey of India." The present generation of members of the Society, however, would hardly recollect that he filled successively the offices of Vice-President and President long before some of us were born. It is not too much to say that his services to this country will not be readily forgotten, and his name will remain indissolubly connected with the great survey operations of India.

Babu Girindranath Dutt, who was cut off in the prime of life, joined the Society about 15 years ago. During the years preceding his death, he was engaged in a series of interesting

researches upon the tribes and castes of Bengal, and his papers on the Brahmins and Kayesthas of Bengal treated of a subject of a highly controversial character and covered so much ground that, as Mr. Beveridge once remarked, it would require a syndicate of learned men to review it properly.

Amongst our Honorary Members, we have lost two very distinguished names : Lord Kelvin and Sir Michael Foster. It is unnecessary for me here to dwell at length on the intrinsic value of their scientific work ; it is enough to observe that a career of unexampled usefulness and intellectual activity has been closed by the death of Lord Kelvin, while the loss to physiological science, by the death of Sir Michael Foster, cannot easily be repaired. The places of these two eminent men in our list of Honorary Members have not yet been filled, and it is safe to affirm that, whoever may be nominated to fill the vacancies, we can hardly obtain any of the reputation of Lord Kelvin.

I shall now turn for a moment to the field of oriental research, in which some notable contributions have been made by our members in the course of last year. When I had the honour to address you from this chair two years ago, I dwelt upon the importance of the exploration of Tibet and of the results which were likely to follow from an examination of the large number

of valuable manuscripts and books which were brought from Tibet by the then recent Tibet Mission. I pointed out that, by reason of the influence which had been undoubtedly exercised at one time by the literature of India upon the literature of Tibet, considerable light might be thrown upon some of the darkest corners of Indian history and antiquities by an examination of the materials thus revealed to us. It now appears that our hopes are about to be realized, and that the secluded monks of Tibet will be able to reflect back to India the light which they borrowed centuries ago and which has now disappeared from amongst ourselves. One of our members, Mahamahopadhyay Satis Chandra Vidyabhusan, who has devoted himself to these studies, has recently given us a series of papers on "Indian logic as preserved in Tibet." He has noticed numerous valuable Buddhist works on logic, composed during the period which intervened between the 5th and 13th centuries, which have been regarded as lost in this country for many centuries, and which exist apparently only in Tibetan versions. In this list must be included the works of Dingang, one of the foremost Indian logicians, who is said to have flourished near Madras about 1,400 years ago; as also those of Binitadeva, the distinguished scholar of Nalanda who flourished in the

beginning of the 8th century; of Chandragomin, the first grammarian and logician of Bengal, who lived on the banks of the Padma in Rajshahi about the same time; of Rabi Gupta, the famous poet and logician of Kashmir, who wrote about the middle of the 8th century; of Santarakshit of Johour in Bengal, who visited Tibet about the same period; and Sankarnanda who was possibly the last of the logicians of Kashmir and flourished about the middle of the 11th century. By a singular irony of fate, the works of these eminent scholars are no longer traceable in their original form, as with the downfall of Buddhism they gradually fell into disuse and ultimately disappeared completely; nor did they find a shelter in Nepal, as they probably might have done, if they had been books of a religious character. But we can hardly treat it as a matter of surprise that these works have been so carefully and successfully preserved in Tibet in faithful translations. The art of printing, which is rightly regarded as one of the most powerful agencies of modern civilization, appears to have been known to the Chinese many centuries before it was discovered in Europe, and was certainly familiar to the people of China towards the close of the 6th century. When, therefore, intercourse prevailed with Tibet between India on the one hand and China on the other, the monks of that secluded

country got a splendid literature from the former which they were enabled to preserve by means of the agency of the art of printing which they borrowed from the latter. Under royal patronage, especially in the reign of Ralpacan in the 9th century, innumerable Indian Pandits and Tibetan Lamas were engaged on the translation of Sanskrit books into Tibetan. The versions thus elaborately prepared were perpetuated in wooden blocks from which impressions could be taken at any moment. The majority of the works on logic so preserved in Tibet have been found to form part of the Hodgson Collection now deposited in the India office as also of the vast Tibetan Collection brought down by the British Mission three years ago. Mahamahopadhyay Satis Chandra Vidyabhusan has further found traces of these works in the Tibetan Xylographs in the monasteries of Labrang and Phodang in Sikkim, which he visited last summer. It is obvious that we have in this direction a wide field for research, and I would urge upon the younger members of the Society who have any aptitude for the acquisition of languages, to turn their attention to Tibetan and to master the intricacies of that language, not so much for the purpose of elucidating the sacred writings of the Lamas of Tibet, as for the purpose of restoring to India, from Tibetan sources, that rich harvest of Sanskrit

books, Buddhistic as well as non-Buddhistic, religious, scientific, literary and philosophical, which are now known to us only by name, and the originals of which have been completely lost to the people of this country for many centuries. It may be stated with some degree of confidence that the works recovered from Tibet will form, so far, at any rate, as Hindu Logic of ancient and modern schools is concerned, a valuable addition to the literature at our disposal; and it is interesting to observe that they throw a good deal of light on the antiquity of Indian Philosophy, which dates from a pre-Christian, and not improbably from a pre-Buddhistic age. Philosophy was widely cultivated in India during her intercourse with Greece, but though there is considerable similarity between the Indian and Greek systems of Philosophy, there is nevertheless no solid foundation for the suggestion that our system was derived from theirs, though it is conceivable that some of the representatives of our school might have profited from a study of theirs, as is evident from a well-known anecdote which is familiar to all readers of the Indian Travels of Appolonius.

Of the other papers on the side of Philology and Antiquities, one by Mr. Kaye on Indian Mathematics deserves special mention. It has been hitherto held by Orientalists of repute that the modern arithmetical notation is of

Indian origin. In support of this theory, reliance has been placed upon numerous inscriptions, specially some from Southern India, such as the Kalobhabhi inscriptions of 339 A. D., which are dated in figures of the place-value notation. Appeal has also been made to the fact that the rule for the extraction of the square root, given by the famous astronomer Aryyabhatta, who is said to have lived in the early part of the fifth century, pre-supposes a knowledge of the now prevalent form of notation where each figure has a place-value. Mr. Kaye controverts this position, and has recourse to the hypothesis that all the inscriptions before the 10th century that have been supposed to be dated in figures of the modern place-value notation are spurious ; he further contends that the rule of Aryyabhatta applies to all possible notations, and is really algebraic in character. His theory is, with regard to this last point, that there is absolutely nothing in the rule to indicate that it was intended to apply specially to a notation with place-values and a zero. In another paper which was communicated later on, Mr. Kaye maintains that Aryyabhatta was indebted in the matter of arithmetical notation to the Greek astronomers of Alexandria. It may be pointed out, however, that our knowledge of early Indian mathematics is somewhat limited and fragmentary. There is no exhaustive

collection of Sanskrit manuscripts on astronomy and arithmetic, and the works which have been published or rendered into English form a very small proportion of what is known to have existed at one time. Under such circumstances, it is somewhat difficult to make a definite pronouncement on the subject of the indebtedness of Indian Mathematics to foreign sources. Some light, so far as Indian Astronomy is concerned, will be thrown by the brilliant lectures of Dr. Thibaut, which are now in the course of delivery. Dr. Thibaut has established in his classical paper on the *Sulvasutras* the antiquity of Indian mathematics, and, even if it be assumed that Aryyabhatta was indebted to the Alexandrian astronomers, he gave back to the world the light he borrowed from Alexandria in a brighter and more useful form, for as one of our great Sanskrit poets says :

“The sparkling gem gives back the glorious radiance,
It drinks from other light, but the dull earth
Absorbs the blaze and yields no gleam again.”

Amongst the historical papers which have been contributed to the Society during the last year, those of Prof. Jadunath Sarkar on the “Conquest of Chatgaon by Sayestha Khan” and on the “Firinghee Pirates of Chatgaon” are of special interest, and throw considerable light upon a somewhat obscure period of history. They are founded on translations from the

"Alamgirnamah" and indicate amply that a version of other portions of that great work would be equally useful.

Mention must also be made of the papers of Mr. Yazdani, in which he deals with the ancient history of the town and buildings of Narnaul, south of Delhi. Our enthusiastic Secretary, Col. Phillott, has given us a number of papers, some of them, conjointly with Mr. Azoo, which are of considerable interest—not only from the point of view of history, but of anthropology as well; and the paper by Mr. Hoffmann on Mundari poetry, music and dances, give us valuable information as to the habits, customs and manners, as also the language of that interesting tribe.

Rai Sarat Chandra Das, Bahadur, that distinguished Tibetan traveller, holds, in his paper on "A written language in Mongolia," that the Mongolian character was designed after the Tibetan in the 13th century. About the same time, we had a paper from Mr. Walsh on "The Coinage of Tibet," in which he urges the conclusion that the Uigur form of the Mongolian character, which appears on the official seal of the Dalai Lama, was borrowed from the Syriac, through the agency of Nestorian missionaries. I do not feel competent to pronounce upon the respective merits of these theories, nor am I in a position to reconcile

them ; but it does seem to me that the question is worth investigation, whether Mongolia may not have got her art of writing from at least two independent sources, namely Syria and Tibet.

Babu Rakhal Das Banerjee deals, in his paper on "Clay tablets from the Malay Peninsula," with the external influence of Indian thought and art. These seals were brought from the Malay Peninsula by Dr. Annandale, who, in his introductory note, dwells on the long intercourse which existed between the western parts of the Peninsula and the southern coast of India. This affords a confirmation of previous evidence on the subject, which had established, beyond controversy, the influence of Indian religion and art in some of the islands of the Indian Archipelago. I cannot pass in silence over the interesting paper of Mr. Jackson on the history of the caste system, in which he attempts an explanation of the origin of innumerable sub-castes out of the four original castes. Mr. Jackson seeks to establish the theory that, before the advent of the Mahomedans, India was divided into numerous distinct kingdoms governed by kings, who followed divergent customs, with the result that, if a caste lived in an area so extensive as to be subject to more than one political jurisdiction, it became naturally split up into sections whose

customs differed in detail, based, as these were, on the divergent decisions of the kings to whom they were subject. The matter, it must be conceded, is of a highly controversial character, and the theory, however ingenious it may be, can hardly be treated as conclusively founded upon a substantial basis of evidence. At any rate, even if it be admitted that in a particular locality a cause of this description mentioned led to a sub-division of the castes, it would be a mistake to suppose that the same cause was in operation everywhere, and that every sub-caste is traceable to the existence of similar circumstances.

Two of our younger members, Babu Bhabesh Chandra Banerjee and Babu Nilmony Chuckerbutty, have given us interesting papers, which show a creditable spirit of research. The former deals with the subject of Vedic sacrifices, and endeavours to establish that the Aryans, at one time, used to sacrifice human beings and subsequently abandoned the practice, substituting the lower animals, and gradually corn, milk, etc. The latter treats of the chronology of Indian authors, and gives us some important dates supplemental to those contained in Duff's Chronology of India.

In the domain of the Natural and Physical Sciences, our Journal and Proceedings and Memoirs exhibit unabated activity. Prof. Mullick's

brief but important paper on Magnetic Induction of Spheroids has been, with the permission of the Society, subsequently republished in the Philosophical Magazine. In Physical Chemistry we had a stimulating paper from Dr. Travers on the absorption of gases, vapours and substances in solution by solids and amorphous substances ; while the memoir of Prof. Watson, on the fastness of the indigenous dyes of Bengal, treats, with thoroughness and minuteness, of a question of great practical interest to the industries of this country. We had also a very suggestive paper by Prof. Cunningham and Babu Satis Chandra Mukherjee on the electric state of nascent gases. These were followed by notes from Prof. Ray and Babu Bidhu Bhusan Dutt and Babu Panchanan Neogy. All these bear testimony in unmistakable terms to the first-rate work which is now carried on by some of our professors and by their advanced students, and I am assured that the research work done here would be deemed creditable even in more advanced centres of learning.

We are indebted to Mr. Hooper for his interesting paper on the composition of well waters in Hadramaut, which has been claimed by chemists as a research within their domain, and by geologists as a paper which, undoubtedly, throws light on their special subject. In

Zoology we had a series of papers from Dr. Annandale, in which he describes freshwater sponges in brackish water in the Gangetic delta. There are also other papers by Dr. Annandale, Dr. Gruvel and Dr. Linstow, which are of a highly technical character. But I must not omit all mention of Dr. Mann's paper on the diet of tea-garden coolies in Upper Assam, which deals with a question of great interest and practical importance, and must be regarded as the first important contribution on a subject which requires careful attention.

I stated at the outset that there has been, in recent years, a considerable addition to our strength by the enrolment of medical members, and the formation of a medical section of the Society. I may be permitted to add that I welcome the presence of the members of the medical profession, not merely from the point of view of the important contributions relating to medical topics which may be expected from them, but also from the point of view of researches into the history of Indian medicine. It must be conceded with some regret that the Society, in the past, has not done quite as much towards the investigation of the history and progress of Indian medicine as it has done in other directions. By an accident, which is somewhat unfortunate and inexplicable, the energies of our members, who have devoted

themselves to philology and antiquities, have been steadily kept away from the history of Indian medicine. It is true that, more than 70 years ago, the Society published an accurate edition of the great Sanskrit work on Indian medicine known as the Susruta. It is also true that in our own generation attempts were made twice to publish a reliable English version of the same work, but, although the undertaking was begun on each occasion by a distinguished scholar, the attempt was unsuccessful, and no progress worthy of any mention was made. It is obvious, however, that the whole subject deserves and affords ample field for investigation. I am forcibly reminded of the truth of this observation by the publication of an extremely valuable work on the medicine of ancient India, by Dr. Rudolph Hoernle, one of our past presidents. The first portion of the work of Dr. Hoernle, which has been recently published, deals with the subject of Osteology, and makes manifest the surprising extent and accuracy of the knowledge of the subject possessed by the earliest medical writers in India, whose work has been traced undoubtedly to the 6th century before Christ. I have no desire, on the present occasion, to enter into an examination of this interesting work, but it is quite clear that it marks a new epoch in our knowledge of the history of medicine. The

drugs in use, and the more practical parts of the medicine of Eastern nations, have long been familiar to investigators; but, of the more scientific branches of the subject, we have had hitherto very imperfect knowledge. Considerable light may also be thrown on a comparative study of the subject by a valuable monograph on the surgical instruments in Greek and Roman times by Dr. Milne, who submitted it as a thesis to the University of Aberdeen for the degree of Doctor of Medicine. An examination of the works of Dr. Hoernle and Dr. Milne makes it obvious, even to a layman like myself, that Indian writers on medicine possessed an extensive and accurate knowledge, based, undoubtedly, upon dissections and experiments in no way inferior to the knowledge possessed by Greek and Roman physicians. Interesting questions may arise as to the relation of the medicine of the Indians to that of the ancient Greeks and Romans, and it may be a matter of considerable difficulty to ascertain, with any approach to precision, how far either system was indebted to the other. Questions of some difficulty, again, may arise as to the time when the great writers on Indian Medicine flourished, as is amply indicated in a very instructive discussion on the subject between Dr. Hoernle on the one hand, and Prof. Jolly on the other, in recent communications to the Royal Asiatic

Society of London. It is by no means surprising to find that considerable light may be thrown upon these and allied topics from even incidental references in the writings of the great Buddhist travellers. I commend with confidence this field of enquiry, as a promising one, to the attention of our members, and it would be a matter for genuine regret, if a subject which is so peculiarly Indian, should be left altogether untouched and unilluminated by the medical members of our Society.

There is one other topic to which I would like to invite your attention for a moment, before I bring this address to a close. During the last year, the search for Sanskrit, Arabic and Persian manuscripts has been conducted with commendable zeal, and with some noticeable results. Last summer, Mahamahopadhyaya Haraprasad Sastri paid his third visit to Nepal, and the account of the collection which he made there, as stated in the Report laid on the table, is of considerable interest. It would be unfair to expect the same amount of interesting discoveries in the present visit as attended the labours of the Sastri on two previous occasions. We cannot legitimately expect on every occasion to discover grammatical works, now lost in India, or to recover institutes of law or treatises on medicine or chemistry, of unique value and importance ;

but the results of the last research are sufficiently interesting. The Nepal climate, as is well known, is specially favourable for the preservation of manuscripts, and it is not an unusual thing in Nepal to come across palm leaves of the 12th and 13th centuries which have not yet decayed. The Sastri has been able to discover manuscripts of works which establish the undoubted antiquity of the Bengali language; he found at least one work written in a language which may have prevailed here before Bengali became current. We have also ample indication of the extent to which Buddhism flourished in Bengal. Mention may also be made of an important medical work, *Haramekhala*, written in Prakrit with a Sanskrit version attached, and it is interesting to note, further, that works have been discovered on Buddhistic Philosophy representing the counterpart of the great work known as the *Bauddhadhikara* of Udayanacharyya composed about the end of the 10th century. One can obtain a faint glimmer of the continuous and persistent struggle, which must have prevailed about that time between Hinduism and Buddhism and which terminated later on in the complete victory of the former and absorption of the latter. We must, however, patiently wait for further results till the manuscripts have been carefully catalogued and their

contents examined. Meanwhile the gratitude of Oriental scholars is due to the Maharaja of Nepal for the liberality with which he allowed access to the manuscripts, and permitted copies to be made. On the Arabic and Persian side, our inquiries have been prosecuted vigorously, and libraries unknown before have been discovered in Ahmedabad, Bombay, Hyderabad and Madras. I am assured that of the large number of manuscripts collected, some are of considerable antiquity and of great value, including one on jurisprudence, composed by Kamaluddin Mohamed in the early part of the 14th century, the only other copy of which known to be extant is deposited in the Bodleian Library. It must be noted, however, that the Arabic and Persian manuscripts, which have been hitherto collected with the money placed at our disposal by the Government, have not yet been catalogued. Under the terms of the grant, it is incumbent on us to catalogue the manuscripts, and I do express the hope that this work will now be undertaken, so that the treasures, which we have collected, may be brought within the reach of scholars in all parts of the world.

I trust, gentlemen, that the imperfect account which I have given of the work of the Society, during the last twelve months, will convince the most captious critic that our

members have not been idle, and that they have made substantial contributions to the progress of the researches for the promotion of which the Society exists. It is perfectly true that there are no sensational discoveries to announce, but with the progress of time, discoveries of this description have a tendency to grow rarer and rarer, and we can afford to be content, for the present at any rate, with solid work done steadily and without ostentation.

ASIATIC SOCIETY.

3rd February 1909.

GENTLEMEN,

It has been customary for your President, during many years past, to address the society once at least during the term of his office. It has been, however, my special privilege to address you twice in the course of the last three years, once as senior Vice-President during the temporary absence of my distinguished predecessor in this chair, and another time at the end of the first year of my term of office as President. The observations, which I submitted to the society on these two occasions, were so kindly received that I am reluctant, in spite of considerable pressure of other work, to allow the present opportunity to pass without some observations on the past work and the future prospects of the society, and I earnestly trust that my remarks will be received in the same indulgent spirit as on previous occasions.

The first circumstance, to which our attention is necessarily directed on an occasion like this, is the numerical strength of the society. For, unlike other civilised countries, we have here to maintain ourselves almost entirely out of our own resources without any subvention from the imperial or local government, except

for purposes of special work. The financial prosperity of the society is, therefore, necessarily a matter of the deepest concern to all of us. It is a matter for congratulation that during the last twelve months there has been a considerable acquisition to our strength, and the number of members on our rolls now exceeds by over one hundred the number as it stood five years ago. For this substantial addition to our strength, we have to be grateful mainly to the medical profession from whom our recent members have been in a large measure recruited, and I trust that this will prove to be a source of constant supply of strength, if we find ourselves in a position, as we hope we may, to provide an adequate medical library for reference and research. But, although the numerical strength of the society has been not merely fairly maintained, but perceptibly improved, we have to lament the loss from our ranks of more than one distinguished worker. Sir Richard Strachey, who passed away last year, full of years and honours, had been one of our honorary members since 1895, but long before that, in the earlier years of his career, he had contributed to our Journal and Proceedings, valuable papers on the zoology of the Himalayas. The death of Professor Keilhorn has removed from the roll of our honorary members the name of a Sanskritist of world-wide reputation, who had,

during his stay in India, rendered signal service to the promotion of Sanskrit studies in the Western Presidency. and after his retirement had communicated to our Journal valuable papers on inscriptions of historical importance. The venerable figure of the Reverend Father Eugene Lafont will long be remembered by many of us who had the privilege to listen with pleasure and profit to his brilliant exposition of recent scientific discoveries in this hall. We have further to deplore the loss of Rai Bahadur Ram Brahmo Sanyal, who was a devoted student of Indian Zoology, and whose services to the Zoological Gardens will long be remembered with gratitude. He had, from time to time, communicated to us interesting zoological notes, and it was only recently, in the course of the last few months, that the society supported with pleasure his proposal for the establishment of an aquarium on the coast of Bengal.

The internal administration of the society during the last twelve months has been carried on with caution and success, for which we have to be thankful mainly to our treasurers, Mr. Chapman and Mr. Hooper. Our building, which is now fully a century old, has been as usual a source of anxiety and expense, and the time has come when we must seriously take into consideration the feasibility of an entirely

new structure. The land on which the building stands, and which we received as a gift from the Government of India, is an asset of considerable value, and Mr. Burkill has demonstrated that, if this valuable asset be utilized, as it may well be, from a commercial point of view, we may erect on it a magnificent building, which will give us more comfortable accommodation and will, at the same time, prove a source of substantial income. Considerable progress has been made with the development of this scheme, and we trust our proposals may assume practical shape in the course of the current year. I make no secret of my personal opinion that the position has to be boldly faced, and, unless we do so without delay, we shall discover later on that we have spent year after year, in the maintenance of an old building, sums which might have been more profitably spent for the legitimate purposes of the society. As regards our library, which is another asset of considerable value, the extent of which is realised by few of our members and probably by none in the outside world, it is a matter for congratulation that the long projected catalogue is nearing completion. The first part of it has already been placed in the hands of our members, and it is earnestly hoped that before the end of this year all our members and scholars outside our body may be furnished

with a complete and trustworthy guide to our invaluable collection.

I would now turn for a moment to the work (literary and scientific) which has been done by our members during the past twelve months. Our recent publications may perhaps be open to the criticism that they do not show an abundance of first-rate original production, but I think that even the most captious critic will not be inclined to question that they indicate a considerable amount of research and investigation. In the field of Philology, Mr. Harinath De has published the original of an extremely interesting history of Dacca, the former capital of Bengal, and I venture to express the hope that the unique linguistic attainments of the distinguished editor will be more frequently placed at our disposal for the elucidation of many an obscure point in Indian history, which still await solution. Another valuable contribution in the field of Philology came from one of our Ex-Presidents, Mr. Henry Beveridge, who has, I think, shown upon evidence of considerable weight and value that the view of Dr. Taylor that the Salimi coins were not issued during the reign of Akbar cannot be successfully maintained. Babu Mon Mohon Chuckerburty, who has assiduously set himself to the investigation of disputed and doubtful events which happened during the

Mahomedan period of the history of Bengal, has given us two important papers, but till the series is completed, it would be hardly right to criticise his views. The same writer has given us valuable notes on the ancient geography of Bengal and has traced the variations of territorial limits through the various periods of Bengal history. He has also described for us a series of valuable drawings of antiquities in Orissa which were deposited in our library by Col. Mackenzie so far back as 1822. It would be a mistake to suppose, however, that the interest of all our members who are experts in one or other department of Indian Philology or Antiquity has been absorbed in the solution of problems in the Mahomedan period of Indian history. The history of the great founder of Buddhism and of Buddhist philosophy has claimed a fair share of the attention of well-known scholars. Professor Norman has placed at our disposal from Pali sources valuable information as to the life and teachings of Buddha. One of his papers gives us what we are assured is an authentic account of Buddha's habits as a private individual--information which must be of as much interest to the devotees of that religion as the details of the life and teachings of Christ and Mahomet are to the followers of Christianity and Islam. Another paper of

Professor Norman seeks to confirm the view taken by wellknown scholars of the scope and purpose of the inscriptions of Saranath, namely, that it was an edict framed to prevent entrance into the Buddhist order of unprivileged persons whose presence would be destructive of harmony. Dr. Satis Chandra Vidyabhusan has steadily prosecuted his researches into Tibetan sources, which have, in recent years, thrown a flood of light upon the true meaning of Buddhistic philosophy and its influence upon Indian Logic and Metaphysics; and his latest paper gives us some idea of the remarkable contents of a number of works recovered from Tibet and dealing with Madhyamik Philosophy, an extremely recondite system of Indian thought, our knowledge of which has hitherto been of a somewhat restricted character, derived mainly from the Sarvadarsan Sangraha of Madhabacharyya and the Madhyamikabritti. Professor Saradaranjan Roy has, in an interesting paper on The Age of Kalidas, re-investigated this interesting problem, and the force of his arguments has to my mind a distinct tendency to make the pendulum oscillate back to the ancient tradition that this illustrious Sanskrit poet adorned the court of that cultured prince Vikramaditya, who flourished in the first century before the Christian era. There have been also valuable papers in the domain of

coins and inscriptions. A large mass of information, which must be treated as of abiding value and interest, has been placed at the disposal of the investigators by the publication of successive volumes of the catalogue of coins in the Indian Museum, which collection, as is well known, includes the coins placed at the disposal of the Trustees by our society. Of these, the volume by Mr. Vincent Smith throws new light on Indo-Scythian coins. The subject has now been taken up by one of our young enthusiastic workers, Babu Rakhal Das Banerjee, who has arranged the coins chronologically with numerous valuable observations, and has thus furnished a review of the Numismatic history of the Punjab during the first four centuries of the Christian era. Babu Nilmani Chakraborty has re-edited, with critical notes, the Pal inscriptions in the Indian Museum which were originally discovered and commented on many years ago by Dr. Rajendra Lal Mitra and Sir Alexander Cunningham. In the same direction, Mahamahopadhyaya Hara Prasad Sastri has contributed what must be regarded as a paper on a controversial subject, namely, the true reading and translation of the Khorosti copperplate inscription from Taxila; and I trust that scholars, competent to express an opinion upon this obscure topic, will examine the relative value and merit of

the reading suggested by Sir Alexander Cunningham with the conflicting view now put forward. From this brief outline of the philological and antiquarian researches which have occupied the attention of many of our investigators during the last twelve months, it will be obvious that, although we are not in a position to announce any startling discoveries in the domain of philology, history, and archæology, yet it cannot be questioned that the work of our members is of a substantial character and will facilitate a fuller and deeper understanding of many an old problem. Some of these researches are based upon new materials and throw considerable light upon problems of absorbing interest, the bearing of which has hitherto been imperfectly appreciated. There are others, again, who have criticised, and, in some instances, successfully demolished views previously held, and have brought out in their true perspective the aspect of some familiar old problems in the light of the latest discoveries. I must now pass on to researches in the domain of the pure and applied sciences ; but before I do so, I ought not to pass over in silence a paper of considerable interest and value which has not yet been published—I mean the journals of Major James Rennell kept during the years 1764—1767, and edited with minute care and attention by our enthusiastic

Secretary Mr. LaTouche. This paper has not yet been published, but I have seen enough of it to justify the statement without any exaggeration that it is one of exceptional value and absorbing interest; and I feel no doubt that upon the publication of the journal of the pioneer of Indian Surveys, we shall have placed at our disposal materials for the solution of many a controverted point in the topography of these provinces. Another paper of considerable extent, which is now in the press, and which I trust may be published in the course of this year, gives the text of an important and hitherto unpublished work on Hindu Jurisprudence by the founder of the Bengal School of Hindu Law. I am not without hopes that this work may give to jurists as well as to antiquarians a vivid account of the Hindu Judicial System and Procedure as it existed in the tenth century of the Christian era.

In the domain of the pure and applied sciences, we have had a considerable number of papers of value and interest. Mr. Kaye has continued his researches in the history of Indian Mathematics. In one of the papers contributed by him he gives us the text, with an annotated English translation, of the *Ganita* of the great Indian Mathematician, Aryyavatta, whose name was hitherto familiar to scholars mainly through references in the long lost

Pancha Siddhantika of Varahamihir, which was first recovered by Dr. Thibaut and published with an English translation by him in collaboration with our new associate member, Mahamahopadhyaya Sudhakar Dvivedi. Valuable papers on Pure Mathematics have been contributed by two of our younger investigators Professor Syamadas Mukherji and Professor Mahendranath De, in which they develop and extend the theories first announced in a series of papers, which I had the honour to contribute to the Journal of the society more than twenty years ago. Professor Little gave us an extremely interesting paper on the calm region in the atmosphere of Calcutta, in which he has established that at a height of about three-fourths of a mile, there exists a very different air-current from what we find at the surface of the earth. We had also important contributions from Dr. P. C. Roy and Professor Panchanon Neogy on the subject of Chemistry, which furnish some indication of the high level of original investigation now carried on in the laboratory of the Presidency College. In the same field, Professor Watson has continued his researches on the subject of the fastness of indigenous dyes, to which I referred in my address last year. He has established, upon solid evidence, that dyes which are of inferior value, behave in a much

better way on silk than on cotton, a fact which must be recognised as of great practical importance in the development of the industries of this country. In the domain of the Natural Sciences, we have had important papers in Geology as well as Zoology from Capt. Hirst, Mr. Hooper, and Dr. Annandale. Captain Hirst deals with a subject of great practical interest which had been previously attacked by Mr. Shillingford, *viz.*, the Kosi River, the erratic course of which has been a source of great danger to the people of the districts of Bhagalpur and Purneah. The conclusion at which he has arrived is rather disquieting, that the time for the rigid training of the Kosi is at a considerable distance ahead of us. The question is by no means free from difficulty, and we can only trust that, although it is sure to engage the attention of experts, no embankment system will be attempted without full investigation of the dangers likely to result therefrom. During the last year, the society has also published further instalments of the great work on the Flora of the Malayan Peninsula by Sir George King and Mr. Gamble, and it is now expected that another volume will see the completion of what must be regarded as a monument of industry and research. In the domain of Indian Botany, we have had important papers from Mr. Burkill, dealing

with the subject of pollination of flowers, in which the learned author suggests the interesting theory that pendulous flowers are, in wet climate, of special advantage to plants and enable them to protect honey and pollen from the rain. Finally, we have had a short paper from Mr. Leake, in which he introduces the subject of the experimental breeding of Indian cottons. There have been also several other papers communicated, but not yet published, of the contents of which I am consequently unable to form any estimate; but, there is one paper which I feel it would be improper for me to pass over in silence—I mean the paper on birds in Manchu, China, and Turkey by Dr. Denison Ross. I have hesitated how to classify this paper, whether to give it a place in the domain of Philology or of Science. From what I have been able to gather of its contents, I think it might claim a place in both, and on publication it ought to be of value not only to travellers but also to scientific men in the identification of birds in the regions named. From the rapid sketch I have furnished of the work done by our members and published in our Journal and Memoirs during the preceding year, I hope it would be fairly obvious even to the most unfriendly critic that there has been no lack of devotion amongst our investigators, and that the materials which they have been

able to place at the disposal of scientific workers here and elsewhere will maintain, if not substantially enhance, the reputation of the society.

In my address last year, I welcomed the considerable acquisition to our strength by the enrolment of medical members and the formation of a medical section of the society. I ventured to express a hope on that occasion that the energy of some of our new recruits might be directed to an investigation of the history of Indian medicine which affords ample field for research. It is a source of satisfaction to me to find that the field of inquiry which I commended with some confidence to the notice of our medical members has not been left altogether untouched. In the course of the last session, Dr. Girindranath Mukerji submitted to the society a paper of considerable extent, in which he elaborately examined the subject of the surgical instruments of the ancient Hindus. The questions he has raised, as to the priority of Hindu medicine over that of the Greeks, the Romans and the Arabs, are likely to arouse controversy, but in whatever way the question of priority may be decided, it seems to me to be truly remarkable that the descriptions given in our most ancient books on medicine, of the surgical instruments then in use, should bear a close resemblance to the descriptions given

not only in Greek, Roman and Arab medical writings, but in many cases with the descriptions given in modern works on surgery. I trust that this subject, so peculiarly Indian, will not be left alone and will receive that attention from investigators which it undoubtedly deserves.

During the last twelve months, the publication of Sanskrit and Persian works in the Bibliotheca Indica has been carried on with the usual vigour. Of the new works, the publication of which has been undertaken, the most interesting are the Rasarnava and the Śragdhara-Stotra. The former of these is an important Sanskrit medical work, and the value of the edition has been considerably enhanced by the critical notes of Dr. P. C. Roy, and Pandit Harish Chandra Kaviratna. The second is a Buddhist Sanskrit Tantric work of Kashmir, and the learned editor Dr. Satis Chandra Vidyabhusan has considerably enhanced the value of his edition by the reproduction of a Sanskrit Commentary and two Tibetan versions, to which he has added an English translation and an elaborate introduction. Of the two Persian works, which we have brought out during the year, one is the Baznama by Col. Phillott, and the other is the History of Guzrat edited by Dr. Ross. Arrangements were made during the last year for the publication in

future of new works to be included in the series in volumes rather than in parts. The result of this arrangement, it is confidently hoped, will be the publication of such works alone as have been carefully examined and edited by scholars who undertake the work because they have something of real importance to communicate, and not because they have to earn a certain amount of editorial fees. During the last year also, the search for Sanskrit, Arabic, and Persian manuscripts has been conducted with the usual ardour. So far as the Sanskrit manuscripts collected are concerned, they include several works which have hitherto been known only by name, the most important and interesting of which is a commentary on the Mimamsa Philosophy. As regards the Arabic and Persian manuscripts, it is of the utmost importance that the works now collected should be carefully catalogued and described. This task will be speedily undertaken, as the grant has been revived for a further period of five years. It is, however, a matter for regret that we have not been able to make satisfactory arrangements for the search of Bardic chronicles, and every distinguished scholar who is really competent to undertake the work has found himself preoccupied and unable to assist us in this important investigation, which, it is confidently believed, will tend to throw considerable

light upon mediæval Indian history, manners and customs.

I feel that any address delivered on the present occasion would be rightly open to criticism and liable to the charge of incompleteness, if it contained no reference to the celebration of our 125th anniversary on the 15th of January last. The brilliant spectacle which was presented on that occasion is so recent and so fresh in the memory of all of us that a detailed description of that striking scene must be deemed superfluous. I desire, however, to make a public acknowledgment of my personal gratitude to all who assisted us on that memorable occasion, and to convey to them the thanks of the society. I trust it will be possible for us to publish a record of the *conversazione* with a description of the interesting and valuable exhibits which were shown on that occasion ; and I also venture to express the hope that the society will undertake the preparation of a review of its work during the first quarter of the second century of its existence. A review of this character would be a valuable complement to the memorial volume, in which the history and work of the society were recorded at the time of the celebration of our centenary. I cannot of course undertake, on the present occasion, to review the work of the society during the last twenty-five years. That

work occupies such an extensive field and is of such a diverse character that it would require a syndicate of learned men to classify and appraise the contributions of our members ; but as my connection with the society covers nearly the whole of this period, and as I have always been an assiduous student of the contributions of our members—at least of such contributions as have been within the scope of my comprehension and have appealed to my imagination—I think I can, without much difficulty, recall to mind the most striking of the work which has been done by our contributors during the last quarter of a century.

In the domain of Philology, Antiquities and Indian History I can recall the work of Dr. Hoernle on the Bower and Weber manuscripts, which has been truly of an epoch-making character and reveals to us the possibility of Central Asian Antiquities throwing a flood of light on the extent and the character of ancient Indian civilization. I can also recall to mind important papers on the Geography of India by Beames, Raverty, Oldham and Pargiter, and a valuable monograph on the Ancient Geography of Kashmir, by Stein. I can recall to memory also a series of striking papers by Vincent Smith upon Greco-Roman influence on the civilization of India, the substance of which is now incorporated in

his treatise on the History of Ancient India. I can also recollect a series of valuable memoirs on the history, geography, literature, manners and customs of Tibet, by Sarat Chandra Das, Kerle Mark, Raverty, and Walsh, which have, in recent years, been followed up by the researches of Dr. Vidyabhusan, and have illuminated many a dark corner in the history of the spread and effect of Buddhism in different parts of India. Of no mean importance to the history of the Mahomedan period have been the contributions of Beveridge, Maclagan and Irvine, all of whom, as also Nagendra Nath Bose, have cleared up the solution of many an obscure question in Indian Chronology. The history of Buddha and Buddhism has also received considerable light from the researches of Hoey, Bloch and Waddell, the last of whom helped materially in the identification of important places in connection with the history of the life and career of Buddha. The antiquities, manners, customs and chronology of Orissa have been elucidated by Mono Mohan Chakrabarty, who has during many years past assiduously set himself to this task. The history of Nepal and the investigation of Sanskrit Manuscripts recovered therefrom have engaged the attention of distinguished scholars like Bendall, Vansitart and Haraprasad Sastri, the last of whom has made interesting

discoveries in connection with the existence of Buddhism in Bengal. The first paper on the topography of Fort William by that zealous investigator Dr. Wilson was published in our Journal, and the same writer also contributed an important paper on the Geography of Hooghly, which elucidated the history of Bengal commerce in the sixteenth century. I have also a vivid recollection of a valuable paper on the Babylonian Origin of the Lunar Zodiac, by Dr. Thibaut, which must be rightly regarded as a landmark for investigators of that difficult topic. I can also recall to mind fascinating papers on Rajput history and literature by Grierson and Shamlal Das, the former of whom unravelled the beauties of the Padmabati and the latter of the Prithiraja Rasau. I can also recall to mind valuable philological contributions, in relation to various important dialects, for instance, the work of Grierson on the Kashmiri language, that of Bomford on western Panjabi, of Hahn on the Kolerian, of Francke on the Ladaki, of Davidson on the Kafiri, and of Hoernle on the Chattisgarhi. I cannot also afford to forget numerous interesting contributions on the decipherment of inscriptions by Fuhrer, Vincent Smith, Umesh Chandra Batabyal and Nagendra Nath Bose, nor can I pass over in silence the numerous papers on Coins by Rogers, Oliver,

Vincent Smith, Hoernle, Theobald, Raverty, Thurston and Burn—investigations apparently of a dry and uninteresting character, but really of supreme importance in furnishing the missing links, in the divers complicated chains of Indian History and Chronology. We have had also papers of great interest and importance in the field of Anthropology in which some of the most profitable workers have been Sir Herbert Risley, Gait and Dr. Annandale.

I have hitherto confined myself to the domain of history and antiquities, but similar remarks apply to workers in the field of the pure and applied sciences. In the domain of the natural sciences, amongst all the papers published by us during the last twenty five years, those of Sir George King and Gamble on the Flora of the Malayan Peninsula at once arrest the attention by their quality and magnitude; but I am assured that the other contributions by Sir George, King as also the researches of Barclay, Prain, Brühl and Burkill, have considerably widened and deepened our knowledge of Indian Botany. In the field of Indian Zoology, we have had a host of enthusiastic workers, amongst whom one can easily recall the names of Atkinson, Lydekker, Stebbing, Woodmason, Giles, Walsh, Alcock, Annandale and Finn, the last of whom gave us stimulating papers on Warning Colours and

Mimicry. Of Butterflies, DeNicéville and Doharty have made a speciality to such an extent that any subsequent investigator can afford to ignore their work only at considerable risk. In the domain of Indian Geology, we have not had, I regret to say, an abundance of papers, no doubt because the energies of our members in this direction are represented in the publications of the Geological Survey of India ; yet we are able to point out papers in our Journal from distinguished men like Sir Thomas Holland, Oldham and Hooper ; the last of whom has given us the benefit of his researches in a very different direction, namely, Ancient Indian Medicine. During the last twenty-five years also, the contributions in the domain of Physics, Chemistry and Mathematics have been of considerable extent and value.

In the field of Meteorology, I can easily recall important papers by Sir John Eliot, Sir Alexander Pedler, Hill and Little, while some of the most important researches of Dr. Bose were first communicated to the scientific world through the medium of our publications.

In the field of Chemistry, I can without difficulty remember contributions of importance from Sir Alexander Pedler, Dr. P. C. Roy, Dr. Mann, Waterhouse, Watson, Cunningham, the Bhaduri Brothers, Neogy and other enthusiastic workers, many of whom have carried on their

researches in the laboratory of the Presidency College. To all these, must be added the interesting papers on Malaria by Dr. Rogers, which were communicated and published before the foundation of a medical section of the Society.

This rapid and confessedly inadequate survey of the work of our members during the last twenty-five years proves to my mind conclusively that our investigators have not been idle, that, taken as a body, they have made solid contributions to the advancement of Science, and have thus justified the existence of the Society. It would be a mistake to suppose, however, that our work, though so extensive, has been from one point of view of so limited a character. The outline I have hurriedly sketched, takes no note of the far-reaching importance of our publications included in the Bibliotheca Indica. During the last twenty-five years, we have published a large number of Sanskrit, Tibetan, Persian, and Arabic works, in many cases with translations. People who are not intimately acquainted with the work of our Society may be surprised to hear that our publications in this direction during the last quarter of a century cover 65,000 closely printed pages. These publications have placed at the disposal of Oriental Scholars all over the world accurate

and carefully prepared editions of works, in most instances never before published, which throw invaluable light upon every department of oriental learning in relation to India, whether it be Philology, Philosophy, Jurisprudence, Literature, History, or Ritual. With these convincing proofs of vitality before me, I would be reluctant to take a pessimistic view of the future of our Society. At the same time, let us never forget the eloquent words of our illustrious founder, that the Society will flourish if naturalists, chemists, antiquaries, philologists and men of science will commit their observations to writing and send them to the Asiatic Society; it will languish if such communications shall be long intermitted, and, it will die away if they shall entirely cease. Let us take note of this emphatic warning; let us remember that arrested development forebodes decay; let us therefore draw within our ranks, by an alteration of our constitution, if need be, all devoted investigators of Man and Nature in this continent, and, with their co-operation, let us march on in the path of progress. Gentlemen, I thank you sincerely for the high honour you have done me, the highest honour to which a man with any pretension to scholarship can aspire in this country—and, with the deepest feelings of pleasure, I now hand over the charge of the Society to that

brilliant man of science, my friend Sir Thomas Holland, whom you have so wisely chosen to preside over our deliberations.

ASIATIC SOCIETY.

2nd February 1910.

GENTLEMEN,

During the last four years, it has been my privilege to address the Society thrice on the occasion of our annual gatherings. Twelve months ago, when at the end of the second term of my office as President, I reviewed the history of the Society during the last quarter of a century, I hoped, in the year following, to listen to a learned and brilliant discourse from my distinguished friend Sir Thomas Holland. The absence of Sir Thomas Holland, however, has deprived us not only of his able guidance but also of what would undoubtedly have proved one of the most striking of our long series of Presidential Addresses. No one regrets more keenly than Sir Thomas himself his inability to address us this evening, and it is at his special request that I have undertaken to review in brief outline the present position of the Society, and the progress of our work during the past year, and I trust I may claim your indulgence, however imperfect the execution of my task may be.

The first point upon which one naturally feels tempted to dwell on such an occasion, is

the steady continuance of our material prosperity. The growth of the numerical strength of the Society, to which I referred on the last occasion, has been maintained with undiminished vigour. In fact, during the last six years the strength of the Society has been increased by nearly forty per cent. We are indebted to the members of the Medical profession, in a considerable measure, for this accession of strength. It is a matter of some satisfaction that the Council has now found it possible to provide a special grant for the formation of a Reference Medical Library, and the sum of Rs. 3,000, sanctioned for this purpose, will be spent in the course of the present and the next year. I trust I may be permitted to express the hope that this allotment will be regarded as a practical proof of the desire of the Council to meet the special needs of one of the most important sections of the Society, and I feel no doubt that if a larger number of members is attracted to the Society by the formation of a Reference Library and by reason of the satisfactory arrangements made by our enthusiastic Medical Secretary Dr. Rogers for the supply of medical periodicals, a still more liberal grant would be found possible in future years.

The most important point in connection with the internal administration of the Society

during the last year, is the decision about the creation of Fellowships, to be conferred solely in recognition of literary and scientific work. It cannot be denied that a membership of the Asiatic Society does not import any recognition of original work, and as such, has little or no attraction to the modest scholar whose main object is the advancement of knowledge. To alter the constitution of the Society so as to restrict admission only to persons distinguished for research, would obviously narrow the field of supply, and might, indeed, in a brief space of time, prove suicidal. On the other hand, if the prestige and reputation of the Society are to be maintained undiminished, the object can be attained only by the enrolment, as members, of distinguished workers in the different branches of historical, philological, and scientific activity. With the formation, however, of important departments of State, devoted to the furtherance of scientific research in special branches, with the simultaneous increase in the number of special societies for the promotion of different branches of knowledge, and with increased facilities for the publication of original researches of any degree of value and importance, it would be idle to expect that any considerable proportion of the research carried on in this country should, as it was a century ago, be communicated for the first

time to the learned world through the medium of our publications. The practical monopoly which we then enjoyed in this respect, has long since disappeared, and if we desire still to attract to our ranks the best amongst the original workers in this country, we must be prepared to create a distinction which would be valued as a recognition of merit by people engaged in the task of widening the bounds of knowledge. The fellowships which have now been instituted, and the first appointments to which will be made to-night, will, I trust, prove the means of adding substantially to our strength. The success of the experiment will depend entirely upon the wisdom with which it is conducted. If we never forget that these fellowships are to be conferred solely in recognition of historical, philological, or scientific work, irrespective of personal considerations of rank and position, if, in other words, we always jealously seek in this matter to maintain the reputation of the Society as a learned body, I am confident that the distinction will be regarded as worthy of attainment by all scientific workers in our ranks.

There is only one other matter relating to the internal management of the Society to which I must make a passing reference before I deal with the work of the year. Our building, now more than a century old, has

proved to the members of this generation a costly and burdensome inheritance. We are indebted to Mr. Burkill for the advance which has been made with the scheme of a new building for the Society, which might prove adequate for our growing needs, and might at the same time prove a source of income for the maintenance and expansion of our legitimate work. The land on which our present building stands, received by us as a gift from the Government, is an asset of considerable value, and if it is properly laid out, there can be no question that a profitable building scheme may be developed. In matters, however, where large sums of money are involved, and an unprofitable investment may lead to financial disaster, we must necessarily proceed with caution. But I trust that the scheme now in hand will shortly be placed on a thoroughly sound financial basis.

In the course of the last twelve months, we have lost from our ranks two distinguished workers to whose memory a passing tribute is imperatively called for on an occasion like this. By the death of Sir George King, we have lost one of our brilliant members whose writings have considerably enhanced the reputation of the Society. He was not only a devoted worker in the field of Indian Botany, but deliberately chose our publications for the

communication of many of his researches to the learned world, and his monumental work on the Flora of the Malayan Peninsula, of which one instalment was published so late as May last, will long be remembered as one of the most notable contributions to our Journal in recent years. Dr. Theodor Bloch, who joined the Society about 13 years ago, and was for some years its Philological Secretary, has been cut away in the prime of life, while in the pursuit of important researches in the field of Indian History and Antiquities. He was a scholar of extraordinarily varied attainments, and an examination of his published works proves conclusively how heavy a loss has been caused by his premature death to investigators in the field of Indian Archæology.

I shall now turn for a moment to a brief review of the activities of our members in the different domains of research during the last twelve months. It is a matter for congratulation that the papers contributed are, on the whole, of a high standard of excellence and will tend to maintain the reputation of the Society.

In the field of Sanskrit studies, we had an important paper from Mr. Ambicacharan Sen, of a somewhat controversial character. Mr. Sen has been engaged in systematically investigating the history of the Hero-Gods of

the Rig Veda, and in the present paper which deals with Trīṭa, he has arrived at a conclusion different from that of Professor Macdonell of Oxford. Mr. Sen maintains that this so-called Hero-God was a human being, whereas the learned Oxford professor regards him as a personification of fire or lightning. The question is obviously of considerable interest from an anthropological point of view, and the grounds of the respective theories deserve a fresh examination and comparison.

In the field of historical research, we had a number of important papers beginning with the Buddhistic period and terminating with comparatively recent times. Mr. Nanda Lal Dey deals with the monastery at Bikramsila where the last Buddhist University in the Kingdom of Magadh was founded and maintained. He inclines to the conclusion that the University was established about the middle of the eighth century of the Christian era, a view which remains to be supported by independent testimony. Mahamahopadhyaya Haraprasad Sastri and Dr. Satis Chandra Vidyabhusan also have made notable contributions in the field of Buddhistic research. The former has discovered a new manuscript of the Buddha Charita in Nepal, which supplies many defects in manuscripts hitherto available. He has also brought to light an unknown epic by the

famous Buddhist author Aswaghose. Dr. Satis Chandra has given an account of a large number of Sanskrit works on Grammar, Prosody and Lexicography which have been recovered from Tibet. It is now clear beyond reasonable doubt that the Tibetan monks continued their task of translation of Sanskrit works quite as late as the end of the seventeenth century, and if we can induce a sufficient number of Sanskrit scholars to undertake the study of Tibetan, we are sure to recover from Tibetan sources valuable Sanskrit works which have long disappeared from this country.

When we come down to more modern times, we have interesting historical questions examined in several papers by well-known members of the Society. Babu Rakhal Das Banerjee traces the history of Saptagram or Satgaon from the time of its conquest by the Mahomedans to the period of the Portuguese Settlement. To this paper is appended a valuable note by Dr. Bloch in which he edits an inscription not included among those deciphered by the late professor Blochmann. Babu Rakhal Das Banerjee has also discussed the Mathura inscriptions in the Indian Museum, the true reading and import of which had previously led to some difference of opinion among well-known scholars. Babu Manomohan Chakra-

varti, who has for many years past made a special study of problems connected with the early history of Bengal, has given us valuable articles on the temples of Bengal, and has also dealt with several disputed and doubtful events during the early Mahomedan period, specially problems connected with the five successive capitals of Bengal during Mahomedan Rule. The only other paper in this department which demands prominent mention is the Memoir of Dr. Ross on Birds in Turki, Manchoo and Chinese. Our enthusiastic Philological secretary also invited the attention of the members of the Society to the life and writings of the Hungarian scholar Csoma de Körös, the value of whose work as that of a pioneer in the field of Tibetan research can never be over-estimated, and we are anxiously awaiting the publication of the unique work on Tibetan vocabulary by the Hungarian scholar which has been undertaken by Dr. Ross and Dr. Satis Chandra Vidyabhushan.

In the domain of Pure and Applied Science, we have had a number of important papers. Professor Syamadas Mookerjee has continued his researches on the theory of Osculating Conics, which contain the germs of a general theory of great importance and wide application. In the field of Chemistry, we had papers of practical importance from Mr. Hooper and

Babu Bidhu Bhusan Dutt, the latter of whom has analysed the constituents of two well-known famine foods. In the field of Zoology, there were valuable notes by Dr. Annandale and Mr. Chowdhuri, while Dr. Travers Jenkins gave us an interesting discourse on Seafishing. To these must be added the monograph on Sea-snakes by Major Wall, published as a Memoir during the course of the year. In the department of Botany, we had more than one paper likely to prove to be of great practical importance. Of these, the most important are the contributions of Mr. Leake on Indian Cottons and of Mr. Stebbing on a peculiar kind of parasites destructive of oaks in the Himalayas. We had also interesting notes by Mr. Burkill on varieties of the Lemon oil grass, and on two well-known Indian drugs. To these must be added an elaborate paper by Professor Bruhl in which he examines the subject of recent plant immigrants into Bengal. In the department of Anthropology, there were only two papers, but both of them of very special interest. Dr. Annandale and Mr. Pettigrew have both dealt with the subject of the theory of souls, the former among the Malayas and the latter amongst the people of Manipore in North Eastern India. A comparison of the two papers brings into prominence the fundamentally distinct notions on the

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subject which prevail amongst people in different grades of civilization, a distinction likely to be obscured, if not overlooked, when notions so widely different are sought to be represented by the same English word.

I feel myself incompetent to review even in the barest outline the work of the Medical Section. But there is one Resolution of that section, which will, I am sure, meet with universal approval from all persons interested in the mitigation of the sufferings of humanity. That Resolution emphasises the paramount necessity for the establishment of a properly equipped sanatorium for the treatment of phthisis, a mode of treatment which has produced the most beneficial results in other civilized countries. This Resolution was presented by our President to His Excellency the Viceroy who is the Patron of our Society. I trust that, even in these times of financial stress, the complete fulfilment of the object in view will not be unduly delayed. One may, I hope without offence, further venture to maintain the opinion that if the major portion, if not the whole, of the funds raised for the purpose of a Marble Memorial to Her late Majesty the Queen Empress were devoted to the foundation of an institution for the amelioration of suffering humanity, it would be more consonant to the wishes of the people

amongst whom the memory of the good Queen will ever be held in loving remembrance as that of the Mother of her beloved subjects.

There are three other departments of activity in which notable work has been accomplished by members of the Society during the last twelve months. The publication of Sanskrit and Arabic Works in the Bibliotheca Indica has made steady progress throughout the year. In the branch of Sanskrit studies the most important publications undoubtedly are the editions of the ancient work on Ritual by Govila which have nearly been completed under the able editorship of Pandit Chandrakanta Tarkalankar who possesses a deep and wide knowledge of the vast literature on the subject. We have also made an important advance in the matter of publication of Jain Works, one of which dealing with the subject of Logic was composed in the eighth century and is being edited by Dr. Satis Chandra, whilst the other dealing with the life and teaching of Santinath, the famous Jain Saint, is being edited by Munindra Bijoy. In the department of Arabic studies, where our members, in recent years, have not indicated the same measure of activity as in the department of Sanskrit studies, we have, I am glad to be able to say, evidence of solid work well advanced or accomplished. The most

important is undoubtedly the edition brought out by Dr. Ross of Abu Turab's History of Guzrat. The work appears to have been composed towards the end of the sixteenth century and gives a valuable account of the history of Bahadur Shah, his wars with Humayun and the conquest of Guzrat by Akbar. Other historical works of considerable importance have also been pushed forward during the year. Of these, I need only mention the translations of the Akbarnama and Maasir-ul-Umara by an ex-president of the Society, Mr. Beveridge. The former deals with the history of the reign of Akbar by his great minister Abul Fazl, and the latter gives the biographies of the great Amirs of the Indian Empire from the beginning of the reign of Akbar to the end of the 17th century. Both the works are valuable as authorities upon the most brilliant period of Mogul rule in this country, and it is to be trusted that the completion of these translations will not be further delayed.

The search for Sanskrit, Persian and Arabic manuscripts has been sedulously pursued during the year just brought to a close. It has some time been supposed, even by well-informed people, that as the search for Sanskrit manuscripts has been vigorously carried on now for a quarter of a century, we can only hope in future to come across duplicates of well-known

works, and the discovery of unknown treasures can hardly be expected. How erroneous such an opinion is, is amply illustrated by the success which has attended the labours of Pandit Hara Prasad Sastri in this direction. In the course of the last twelve months, the Sastri has been able to secure from Benares two extensive collections of manuscripts formerly owned by two families of well-known pandits and manuscript collectors. It will necessarily take many years before these collections, which have been catalogued, are minutely examined and their contents made available to Sanskrit scholars. It is sufficient to state on the present occasion that they include a copy of the Mahabharat, portions of the Shivapurāṇ, commentaries on the Upanishads, a new commentary on the Purva Mimāṃsā and a Shāiva commentary on the Bhagavadgītā. These and the other manuscripts require careful scrutiny, and it is a matter for regret that amongst the younger generation of Sanskrit scholars, we have not got a sufficient number of trained and enthusiastic workers, ready to devote themselves to the difficult task of appraising the new materials brought to light. It is manifest that the publication of complete editions of these works must take many years, even if funds are ever forthcoming. But it is quite practicable to have full summaries of the contents of the new works, indicating adequate-

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ly the points of divergence from existing works or commentaries on the same subject, and it would not be much to our credit if work of this description is indefinitely delayed.

The search for Arabic and Persian manuscripts has also been energetically conducted during the year, and a large number of manuscripts, representing almost every branch of literature and science, has been secured, several of which are distinctly interesting from an Indian point of view. Of these, the most notable is a splendid copy of the Koran beautifully illuminated, which originally belonged to the first Prime Minister of the Emperor Akbar, and subsequently passed into the possession of a distinguished historian of the time of Shah Jehan. Here also it is obviously impossible, with the limited funds at our disposal, to hope for the early publication of any considerable portion of the new works brought to light, and what is urgently needed is a full and detailed account of works hitherto unpublished.

There is only one other topic to which I would briefly invite your attention this evening before I bring my address to a close. For several years past, we have had at our disposal the sum granted by the Government for the search of the Bardic chronicles of the Rajputs. We have hitherto found it impossible to make any satisfactory arrangement even for a preliminary

survey of the work to be undertaken. Fortunately, Mahamahopadhyaya Hara Prasad Sastri, on his retirement from the Principalship of the Sanskrit College, found it possible to devote his time to an enquiry into this fascinating subject, and the offer of his services was gladly accepted by the Society. He travelled in Gujrat and Rajputana for two months last year, and the information collected by him furnishes a tolerably accurate idea of the nature and extent of the work to be accomplished. It is beyond dispute that many of these chronicles have, from time to time, been reduced to writing, but many more still exist only in the form of ballads and songs in the memory of professional and hereditary Bards, scattered throughout the various Rajput States. What is required, therefore, is not merely to collect manuscripts, more or less accurate, of the chronicles, but to take down and reduce to writing the ballads handed down by word of mouth from generation to generation. Work of this description has been undertaken and accomplished in other civilized countries, notably in England, Scotland, and Denmark. In Denmark, as is well-known, the distinguished scholar Grundtvig was enabled to make a collection of ancient popular ballads fairly complete and representative of the national character, only by means of national help. All

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Denmark combined to help him in his labours, and schoolmasters and clergymen in retired nooks where tradition longest lingers, actively engaged themselves in taking down ballads from the mouths of the people. If, therefore, we are to undertake a complete collection of the Bardic chronicles of Rajputana, we must have a systematic organisation for reducing to writing the ballads as they are recited by the Bards, and obviously this can be accomplished successfully only with the active co-operation of the Rajput Chiefs themselves. If this work is accomplished, as I trust it may, we shall have collected firsthand materials for a proper appreciation of the history and antiquities of one of the most important and interesting branches of the Indian race. It must not be overlooked, however, that the study of the materials when collected, must prove to be a task not wholly free from linguistic difficulties, as the chronicles, whether reduced to writing or recited from mouth to mouth, are not composed in one uniform dialect. This, however, is a matter which ought not to stand in the way of an early and a systematic effort to collect and preserve the materials which may otherwise disappear, and become irrecoverable before the lapse of many years.

I trust I have said enough to convince people unacquainted with the precise nature of

the work in which our members are engaged, that the field for research in Indian history, philology, antiquities and science, is by no means restricted or exhausted. It may be conceded that discoveries of an epochmaking character cannot be made every twelve months, but there is no room for dispute that solid work on an extensive scale is accomplished by our workers from year to year, and in spite of their sustained effort, much remains yet to be accomplished. Investigations into many a recondite problem of Indian history and of the development of different branches of the Indian race have yet to be undertaken and vigorously pushed forward, and scholarly men of the younger generation may rest assured that their labours in these fields will be amply repaid. It is not in the lot of every man to be a Jones or a Prinsep, but that is no reason why a modest scholar should lose heart and abandon a field where so many others before him have worked with profit in the cause of the advancement of knowledge.

ASIATIC SOCIETY.

1st February 1911.

In the course of the last five years, the duty has devolved on me several times to address the Society on the occasion of our annual gathering, and I am deeply sensible of the indulgence with which my imperfect survey of the progress of our work has been always received. In the present instance, the interesting address prepared by our retiring President indicates various channels into which the activity of our members may be turned during the second century of our existence; but his absence from the country since October last has rendered it impossible for him to deal adequately with the history of the last twelve months. I trust, therefore, I may claim your forbearance if I occupy a few minutes of your time with a brief review of the chief features of the work in which we have been engaged during the last year. But before I do so, I hope I may be permitted to refer for a moment to two matters of some importance in connection with what I may call the internal administration of the Society. In the first place, it is a matter for congratulation that the steady increase in the roll of our members has been distinctly maintained during the last year. For the first time in the history of the

Society, the number of our members exceeds five hundred, and if we make a comparison with the number as it stood five years ago, the increase during the period has been fully 40 per cent. This is a rate of development of which the most prosperous Societies may be proud, and it is a matter for rejoicing that the accession of our strength is due in a large measure to the members of the medical profession. Their needs are now sedulously watched by our distinguished medical secretary, and I venture to express the hope that this new source of supply will not fail us in the future. The strain upon the finances of the Society must necessarily be great, if its work as a learned institution is to be performed on a scale commensurate with its past reputation, and we trust that, with the advancement of knowledge, there will be a wider appreciation of our work, and a greater readiness on the part of all men of culture to join our ranks. In the second place, as explained in the address of our President, the Council of the Society has arrived at a satisfactory settlement of the difficult problem of our building, which has been a subject of anxious consideration during many years past. The handsome structure in which our valuable Library has been located and our meetings held, is now more than a century old. In recent years, its condition has been unsatisfac-

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tory, inspite of constant repairs which have caused a heavy drain on our limited resources. The project of the erection of a large residential building on our land, which occupies a situation of considerable advantage and is an asset of great value, has been minutely examined, criticized and abandoned. The position is unanswerable, that it is inconsistent with the true function and dignity of the Society to engage in building speculation. The Council has consequently decided, and their proposals will shortly be placed before the Society at large, that a building should be erected sufficient to satisfy our legitimate needs. The scheme now under consideration has been rendered feasible, mainly by reason of a generous grant of forty thousand rupees to our building fund by the Government of India. Since the time of the foundation of our Society, it has been our proud privilege to claim as our patron the head of the administration in this country, and it is not a matter for surprise that our efforts to extend the bounds of knowledge should receive adequate encouragement from the State. The cost of the erection of a new building has not yet been worked out in full detail, and it is not improbable that we may hereafter be driven to ask the Government of India to supplement what it has already so generously given, and we venture to express the

hope that, should such a contingency arise, our application will meet with sympathetic consideration by the Government of His Excellency, to whom we are all grateful for the encouragement he has given us by his gracious presence this evening.

Let us now turn for a moment to an examination of the work of the Society during the last twelve months. The feature of that work which at once arrests our attention is the development of what may be compendiously described as Tibetan studies. On a previous occasion, I ventured to lay stress upon the importance of the study of Tibetan sources for the discovery of unexplored materials which might illuminate many a dark corner in Indian history and antiquities. It is now well known that the secluded monks of Tibet carried away from India during, what may be called the dark ages of Indian history, valuable works in different departments of Sanskrit learning which have been preserved in Tibet, sometimes in original, sometimes in translation, though the originals have been completely lost in the country of their birth. The recovery of lost Sanskrit works from Tibetan sources—and similar observations, I may add, apply to Chinese sources—is a matter of considerable interest and importance. I confess, therefore, that every effort made for the promotion of

Tibetan studies amongst our scholars, every facility given in this direction, appeals to my sympathy and imagination. We opened the last year with an interesting address by Dr. E. Denison Ross on the great Hungarian scholar, Csoma de Koros, one of the ornaments of our Society—great in his devotion to pursuit of knowledge, great in his perseverance which alone sustained him all the way from Hungary to India, great in his penetrating insight into the structure of the Tibetan language, and great in the mastery which he acquired of works written in that difficult tongue. During the last year also, we have made satisfactory arrangements for the re-publication in a collected form of the papers of Csoma de Koros, and actually brought out the first part of his trilingual vocabulary which has remained unpublished in our possession for more than three quarters of a century. This work is essentially a Buddhist Sanskrit dictionary of technical and philosophical terms, compiled by Indian Sanskritists, translated into Tibetan by learned Lamas in the Middle Ages, and rendered into English in the beginning of the last century by Csoma de Koros. The work is under the competent editorship of Dr. Denison Ross and Dr. Satis Chandra Vidyabhusana, and will have the advantage of a masterly introduction by the first named scholar. In this connection,

it is interesting to note that arrangements have been made by the Society to place two new marble tablets, one in English, the other in Hungarian, upon the tomb of Csoma de Koros at Darjeeling. It is but meet that the Society should do honour to the memory of one of our most distinguished members whose works have added to our renown ; and we can easily imagine how enraptured his soul would have been, if he could re-visit the scene of his labours, where we have at length engaged a Tibetan Lama to take care of the collection of books so essential for the progress of his favourite studies. I have not yet, however, made any reference to the most notable incident of the last twelve months in connection with the acquisition of materials for the progress of Tibetan studies,—I mean the purchase by the Society of a complete set of the *Tangyur*, a Tibetan encyclopædia of literary works, both sacred and secular, consisting of two-hundred and twenty-five volumes. Gentlemen unacquainted with the history of this wonderful collection, will be able to realize, to some extent, its variety and magnitude when I tell them that one of the four sections into which the entire work is divided, embodies more than one thousand separate treatises on theology, philosophy, logic, ethics, grammar, rhetoric, poesy, prosody, lexicon, astronomy, astrology, medicine, alchemy and the mechanical arts. It is an interesting fact that as the

art of printing had been introduced into Tibet from China in very early times, this vast work was stereotyped in wooden blocks, and the edition just acquired for our library appears to have been printed from blocks prepared in 1731 at the monastery of Narthang in Tibet. It is worthy of note in respect of the works comprised in the Tangyur, as also those comprised in the other encyclopædia, called the Kangyur—which occupies one-hundred-and-eight massive volumes and of which we have possessed a set for many years—that they are mainly of non-Tibetan authorship. The treatises are principally Tibetan versions from Sanskrit and Chinese texts, made in the ninth century of the Christian era. It is said that the encyclopædias were put into their present forms, at the end of the thirteenth century, by a distinguished Tibetan sage named Buton, who devoted to the task thirty years of strenuous labour. The traditional account of the circumstances under which the works were compiled, if true, illustrates how even amid the most adverse surroundings and in an age by no means remarkable for its encouragement of literature or spread of civilization, monumental work was accomplished by secluded monks by years of unremitting effort and devotion. Zengis Khan, the famous founder of the Mongolian kingdom, conquered China in the beginning of the thirteenth century. His grandson,

Kublai Khan, extended his sway over the whole of Central Asia inclusive of Tibet, and some glimpses of the extent of his Empire may be gathered from the writings of the celebrated Venetian traveller Marco Polo. This Kublai Khan was apparently a man of culture, and invited a Tibetan Lama to his Court to assist him in the formation of an alphabet for the Mongolian language. In return for his services, Kublai Khan made the Lama the tributary sovereign of Tibet and spiritual head of the Tibetan Church. The Lama thus placed in a position of authority, employed the sage Buton to enrich the Tibetan language by translations from Chinese and Sanskrit sources. The work was rendered possible by the presence in Tibet of a number of Buddhist Sanskritists who had crossed the Himalayas from India and taken refuge in Tibet on the sack of the University of Vikramsila by Bakhtear Khiliji. The compilation of the work was thus facilitated by what was then rightly treated in India as a calamity to the cause of Sanskrit and Buddhist learning ; and the permanent preservation of the fruits of the joint labours of the Indian Pandits and the Tibetan Lamas was secured by the art of printing which had been introduced into Tibet from China in the seventh century of the Christian era, and had obviously attained considerable development. The two encyclopædias I have mentioned, whose contents have

not up to the present time been exhaustively scrutinized, are known to embody works in various departments of Sanskrit learning, the originals of which can no longer be traced in this country. It is, therefore, obviously a matter for congratulation that such an unexplored field of research should be placed within the reach of our members. Copies of the Tangyur are very rare on this side of the Himalayas; so far as I know, there are only two sets, both of them in inaccessible monasteries at Sikkim, and some years ago, one of our members considered himself extremely fortunate when after considerable hardship and expense he obtained an access to these monasteries, and was allowed as a special favour to take notes from the encyclopædia. European scholars, however, have been more fortunate; the set which was collected from Nepal by Brian Hodgson, about a century ago, was deposited in the India Office, and another set brought from Gyantse by the Tibet Mission of 1904 found a place in the British Museum. There is also a set in Paris, but two sets secured by the Russian Government and deposited in St. Petersburg are said to be by far the best specimens hitherto obtained. I venture to express the hope that scholars will now be forthcoming in this country to explore the abundance of materials placed at their disposal. Csoma de Koros prepared a very brief abstract

of the contents of the Tangyur more than eighty years ago, which has been republished in France. Dr. Satis Chandra Vidyabhusana, has published in our Journal only the first instalment of a subject-catalogue of the work. Dr. Cordier has also recently published a volume of nominal catalogue, and it is understood that Mr. Thomas is engaged in London on a similar task. Here manifestly is an extensive field of research, where the laborious scholar may hope to find profitable work, and no one need regret that he was not born in the last century when Indian studies were still in their infancy. I sincerely trust that our young men will take, in large numbers, to the study of Tibetan, which, under the sanction of the Government of India, is now recognized by the University of Calcutta as one of the subjects of examination.

Let us now turn our attention to the work done by our members during the last year in the field of Indian Philology, History and Antiquities. Here, again, we have fortunately acquired what must be deemed an invaluable treasure from the desert of Central Asia. Our Philological Secretary was able to secure for us six old leaves, written in Brahmi characters, belonging to a very old Puthi found by Mr. Kara in the Takla Makan Desert. Three other leaves are known to exist, two in Chicago, and

one in Berlin ; the latter has been deciphered by Drs. Sieg and Siegling and has been found to contain names of Bodhi Sattvas. It would obviously be a gracious act on the part of the Society to allow these distinguished scholars to continue the work of investigation they have initiated, and thus throw light, if possible, upon the nature of the contents of the Buddhistic work of which the leaves in our possession appear to form but a fragment. It would be a bold task to anticipate the ultimate result of these investigations, but this much seems to be reasonably clear, that centuries ago Buddhistic and Sanskritic influences which owed their origin to India were in full operation in Central Asia. Amongst the researches prosecuted by our members during the last twelve months, prominent mention must be made of the work of three scholars who have made important contributions to our knowledge of different dialects, namely, Dr. Grierson on Maithili in North Behar, Mr. Baily on the Punjabi, and Mr. Mehl on the Mundari in Chota Nagpur. In the domain of Sanskrit learning, we have had important contributions from Mahamahopadhyaya Haraprasad Sastri, Mr. A. C. Sen and Dr. Satis Chandra Vidya-bhusana. Their papers raise important questions in connection with ancient and mediæval Indian History, and topics such as supposed

reference to Babylon in the Rig Veda, the causes of the downfall of the Empire of Asoka, or the date when the celebrated poet Asva Ghosha flourished, must obviously be deemed highly controversial. Other writers, amongst whom may be mentioned Mr. Stapleton, Babu Rakhal Das Banerji and Babu Monmohan Chakravarti, have had recourse to materials of a very different character to enable them to throw light upon obscure points of Indian History. The first two have laid under contribution coins and inscriptions to establish the antiquity of Dacca and the genealogy of the Sen Kings of Bengal, while the third has traced evidence of Hindu architectural ideals in the early Mahomedan mosques of Bengal. Dr. Satis Chandra Vidya-bhusana has continued his researches in the fascinating subject of the history of mediæval Indian Logic, and has made available to scholars valuable treatises like Naya Sara, the only work extant on Brahminic Logic of the Middle Ages, Pariksha Mokshasutra of the Digambar Jains, Nyayavatara of the Svetamvara Jains and Nyaya Prabesa of the Mahayana Buddhists. These works serve to give us considerable insight into the relative positions of the different schools of Indian Logic, a subject hitherto involved in much obscurity. In this connection, reference must be made to an interesting paper on Hindu Logic by Prof. Vanamali Chakravarti, in which he discusses the various theories

concerning the standards of right knowledge as laid down by Indian logicians. Of a very different character is the Memoir on Monuments in Afghanistan by Mr. Hayden, embodying a masterly investigation which cannot fail to rouse the interest of all serious students of Mahomedan Archæology. In the field of Arabic and Persian studies also, notable work has been accomplished. Moulavi Abdul Wali has edited for the first time a complete collection of the Quatrains of Abu Said Ibn Abdul Khair, of which a fragment only had been published in the proceedings of the Munich Academy, thirtyfive years ago, by Prof. Ethé. Of fascinating interest is the collection of poems of Emperor Babar edited by Dr. Denison Ross from the interesting manuscript in the library of the Nawab of Rampore, which is in part in the autograph of the illustrious Royal author. Partly scientific and partly philological in character is the contribution by Mr. Stapleton and Mr. Azoo in which they give us a study of an alchemical compilation of the thirteenth century. In the field of the natural and physical sciences, there have been numerous papers which treat of various points of interest to the investigator, but I trust I may without impropriety mention two of these as of special value. The report of the committee on the adoption of a standard temperature for laboratory work in India is of the greatest practical

utility to all scientific investigators in the Tropics, and we are indebted to Prof. Bruhl for directing attention to the importance of the subject. The other paper on crops and rainfall by Mr. Jacob furnishes us with data to determine the relation between the increase of rainfall and the increase of crops ; the subject is obviously one of far-reaching interest and deserves extended investigation.

There is only one other matter which demands special mention on the present occasion. I refer to the work in aid of the search for Sanskrit, Arabic and Persian Manuscripts. The importance of this undertaking cannot be overestimated, as the rapidity with which manuscripts in the climate of this country are destroyed, renders it the imperative duty of the State to take early and adequate steps for their rescue and preservation. I have never concealed my opinion that the sums annually placed at our disposal are by no means adequate to meet the exigencies of the situation. The report of the progress of the search during the last year in its two departments, under the respective direction of M. M. Haraprasad Sastri and Dr. Denison Ross, will satisfy the most superficial reader that the limited means under our control have been judiciously and effectively applied. In the field of Sanskrit literature, we have been able to secure manuscripts from 800 to 1000

years old, while six-hundred and twenty-five manuscripts have been examined with a view to acquisition, but, for want of funds, have not yet been purchased. Similarly, in the Arabic and Persian Department, though several valuable manuscripts were secured, notably a commentary on the well-known Arabic work *Safia*, our operations were considerably restricted on account of want of funds. We have also a faint indication of the valuable and hitherto unutilized materials for the history of ancient and mediæval India which may be available if a vigorous search is instituted in the Rajput States, and among others it may yet be possible to recover the celebrated work *Prithiraj Rasau* in its pristine purity. I trust I may be permitted without impropriety to dwell upon the circumstance that the onerous work which is done by distinguished scholars in aid of the search for these manuscripts is entirely honorary, and their labours have never been remunerated from private funds or public revenues; this, I venture to think, substantially strengthens our claim upon the Government for additional funds to expedite the search and thus rescue from destruction materials for future investigation.

I hope this imperfect review of the work of the Society during the last twelve months will amply justify the statement that our members,

most of whom have scanty leisure left for investigation after discharge of their ordinary official duties; have devoted themselves, with praise-worthy determination and with some measure of success, to extend the bounds of knowledge in various departments of intellectual activity which, according to our illustrious Founder, is the object of this Society; and I further hope that the younger members of our Society will feel convinced that the field of research they have just entered is boundless, and that the toiler is likely to be rewarded in the future by as rich and varied a harvest as ever fell to the lot of our predecessors.

ASIATIC SOCIETY.

5th February 1913.

MR. PRESIDENT AND MEMBERS OF THE SOCIETY.

I deem it a high privilege to be permitted to deliver the address this evening, and I trust I may look forward to the same kindness and forbearance from this learned audience as I enjoyed on previous occasions, notwithstanding the imperfections of my attempt to give, in response to the call from the Chair, a brief outline of the activities of the Society during the last twelve months.

It is a matter for congratulation that the material prosperity of the Society has been well maintained during the past year. There is no substantial falling-off in our numerical strength; indeed, the number of paying members has increased, while there has been a decrease in the list of non-paying members. Our financial condition is sound, and our expenditure has been strictly regulated. But the condition of our building has continued to be a source of some anxiety. Expert opinion decisively supports the view that though the building, which has now lasted for more than a century, may continue to serve our purpose for some time longer, we are in a more or less

precarious position, and a sharp shock of earthquake would mean the complete ruin of our valuable Library, accumulated during a century and a quarter, and our inestimably rich collection of Sanskrit, Arabic and Persian manuscripts. The question of a substantial and commodious building, adequate for our present needs and capable of needful expansion to meet our future demands, is pressing upon us with increasing insistence. As a result of the deliberations of the Building Committee during the last twelve months, the balance of opinion is no longer in favour of a speculative building scheme which found some support several years ago. A scheme of that character is open to the obvious objection that it is inconsistent with the purposes of the Society; but it is equally open to the graver objection that it really involves an appreciable element of risk due to external circumstances wholly beyond our control, such as possible depreciation of land and building values owing to the transference of the Capital and other like unforeseen incidents. The most prudent course appears to be to erect a suitable structure on one portion of our property and to make the most profitable use of the remainder, which will unquestionably prove to be an asset of great value. I trust I may without impropriety restate my firm conviction that we are entitled to further

assistance from the State in furtherance of the building scheme; such assistance would only be an appropriate recognition of the value of the entirely voluntary and unremunerated labours of successive generations of our members in the cause of the advancement of knowledge, the growth of which it is the duty of every truly enlightened Government to foster.

Let us now turn for a moment to the literary and scientific work accomplished by our members during the last twelve months; here we are gratified to find that a high standard has been maintained from the quantitative as well as the qualitative point of view. In the department of Philology and Antiquities, the researches of our members connect themselves with the work of previous investigators in several important directions. Mr. Kingsmill has attacked afresh the problem of the era of Vikramaditya and the foundation of the Kushan Kingdom in India, which, as is well known, has led to considerable diversity of opinion among learned scholars. Mr. Kingsmill has had access to Chinese sources, and he puts forward the view that the term Kanishka is not a proper name at all but a generic name for a king, and that the real founder of the Kushan Dynasty was Cadiphes, who was surnamed hero of heroes, king of Kushanas. This view must be regarded, upon

the somewhat meagre materials available, as more or less hypothetical; but if the suggestion is ultimately confirmed, that this Cadiphes, who took possession of the Punjab and Western Magadha in 57 B. C., was identical with king Vikramaditya of Indian tradition, the discovery must be pronounced one of the most startling in Indian History and likely to revolutionize deep-rooted and firmly-settled ideas upon a fundamental point. Other writers amongst us made creditable attempts at identification of important personages or settlement of the dates of important events in later periods of Indian History. Mahamahopadhyaya Haraprasad Sastri maintains the affirmative of the thesis that the Sungas, who under their leader Puspamitra successfully persecuted the Buddhists and ultimately overthrew the Maurya Empire, were not Persians as had been previously supposed, but were Brahmins of the Sama Vedic School accustomed to horse-sacrifice. The same writer quotes a passage from a palm-leaf manuscript to show that the poet Bhatti was the son of Sridhar Swami of Valabhi. On the other hand, a young scholar, Babu Surendranath Sastri, endeavours to establish that the poet was no other than the Bhatti Bhatta, to whom Dhruva Sen the third of Valabhi granted a village in 653 A.D. Babu Brajajal Mookerjee takes up the question of the

date of the great astronomer Varahamihira and reaches the conclusion that he chose the Saka year 427 as the starting-point of his astronomical calculations, possibly to commemorate the date of his own birth. Mr. Pargiter, one of our ex-presidents, whose retirement from this country deprived us of the last member of the Indian Civil Service who had attained distinction as a Sanskritist, has given us an important paper on the Ghagrahati grant which dates back to the reign of Samacara Deb in the 7th century. The genuineness of this grant is, I think, satisfactorily established, and it can no longer be treated as ambiguous or of doubtful import. In addition to this paper, we have a number of important epigraphical contributions. Mr. Ramaprasad Chanda endeavours to establish that the Kambojas were Koch Raj Bansis and that the inscription on the Dinajpur pillar, which records the erection of a temple of Siva by a Gaudian king of the Kamboja family, was prepared towards the close of the 10th century. Babu Rakhal Das Banerjee has turned his attention to the Belkhara inscription and the Machli-Sahara grant, and has reached the conclusion that Harischandra, the son of Jaychandra, reigned in Oudh for seven years after his father had lost his life in the battle of Chandawar. Mr. Mohanlal Pandia has subjected the Atapura inscription to a

critical examination and reviewed the two conflicting theories, namely, that the Kings of Mewar were of Suryya Vamsa origin and that the Chiefs were originally Nagar Brahmins. Babu Akshaykumar Maitra has discovered traces of Buddhism in the district of Maldah, and his find, which consists of two images, one of Buddha and the other of Bodhisattva Lokeshvara, cannot but arouse the interest of all serious students of Buddhist Iconography. Of great interest is a paper by Ramanuja Swami of the famous Vaisnava temple near Vizagapatam in the Madras Presidency, in which he repudiates the theory that the temple originally Saivait was subsequently converted to Vaishnavait purposes by Ramanuja in the twelfth century. These contributions are of undoubted value and interest; but the activity of our members in the direction of Sanskrit studies must not be judged solely by the papers mentioned; the publications which constitute the Bibliotheca Indica Series are of considerable importance and deserve more than a passing notice.

Amongst new works published during the last year, the place of honour must be given to the Tibetan version of a comprehensive Buddhist-Sanskrit commentary on the famous Sanskrit lexicon, Amarakosh, edited by Dr. Satischandra Vidyabhushan, who had previously brought to light the text of the lexicon

itself from Tibetan sources. We have here a fresh illustration of the great possibilities of useful research in the domain of Sanskrit learning through the medium of Tibetan sources, and I am constrained to admit with feelings of keen disappointment that our progress in the pursuit of Tibetan studies has not been particularly creditable, since the days of our illustrious member Csoma de Koros, whose collected papers were recently republished by us and whose impressive figure will henceforth adorn our rooms through the courtesy of the Hungarian Academy. Considerable importance must also be attached to the publication of two interesting treatises on the school of Smriti or Law and Usage prevalent in Orissa, viz. the Smritiprakas and the Suri Sarvasva. It cannot be disputed that our attention has hitherto been monopolised principally, if not entirely, by the more famous digests of Hindu Law, and there is good ground for the suspicion that local customs and rules have consequently not received the attention they deserve. In the same series, we see the beginnings of literary and grammatical works of considerable importance, the Bhasa Britti, a commentary on the Grammar of Panini, and Saduktikarnamrita, a poetical anthology by Sridhar Das, dating back to the reign of Lakshman Sen who flourished in the twelfth century. It is a matter for genuine

satisfaction that considerable activity has also been displayed during the last year in the matter of the publication of Arabic and Persian works of literary or historical importance, such as the Persian fairy tale Gulriz, edited by the late lamented Mr. Azoo and Aga Muhammad Kazim Shirazi; the Shah Alam Nama, edited by the brilliant scholar too early lost to the cause of linguistic researches in this country, the late Mr. Harinath De; the memoirs of Shah Tahmasp, edited by our late Philological Secretary, Dr. Phillott; and the Shah Jehan Nama, edited by Prof. Yazdani. I trust I have said enough to indicate how varied and extensive is the collection of Sanskrit, Tibetan, Arabic and Persian works which still wait to be placed at the disposal of the learned world; in fact, the zeal with which our editors have worked has been so great that the funds at our disposal for the publication of these works has been exhausted, and we must either press for a substantial increase of the Government grant or considerably restrain the activity of our editors. The situation is rather embarrassing, and the difficulty is enhanced by the fact that, as the search for Sanskrit, Arabic and Persian manuscripts is vigorously carried on, fresh materials are brought to light, which it is incumbent on us as a learned body to bring within the easy reach of scholars interested in

the progress of Oriental studies. To take one illustration only, Mahamahopadhyaya Haraprasad Sastri has in the course of his searches for Sanskrit manuscripts, come across a copy of an important work on Hindu Law called *Smṛiti Manjari* by Gobindaraja, the great commentator on the Institutes of Manu. This manuscript dates back to the year 1145 and effectively contradicts the theory put forward by Prof. Julius Jolly that Gobindaraja flourished between the 11th and the 15th centuries and could be identified with king Gobindachandra of Kanauj. One can imagine without difficulty the stir which would be created in the learned world of Orientalists by the publication of an accurate edition of this work. The Sastri has also been fortunate enough to come across a palm-leaf manuscript of *Parasara Smṛiti*, copied in 1142. We cannot but lament that the funds at our disposal make it impossible for us to publish works of this description at an early date, and even to have them properly catalogued. I feel assured that if the importance of the undertaking was better recognized and more liberal grants allowed for the purpose, there would be no lack of Sanskritists amongst the younger generation of our scholars to explore this field, with honour to the Society and advantage to the cause of learning. Before I pass away finally

from this department of our work, I may dwell for a moment upon the progress recently made in the search for Bardic Chronicles. The importance of research in this direction cannot be overestimated or too frequently reiterated. If ever the history of the Rajput States is to be correctly appreciated and the development and downfall of the great military race of India graphically depicted, an accurate and exhaustive collection must speedily be made of the traditions handed down from generation to generation by the bards of Rajputana. In the course of his third tour, the Sastri has come across important collections at Ujjain, Jodhpur and Mundi, and has discovered the original of the real Prithvirajarasau, composed by Chand, the illustrious Court-poet of Prithviraj, the last Hindu Emperor of Delhi. It is now conclusively established that the work of Chand, in its original form, was of moderate length, and has attained its present size by successive accretions not always easy to differentiate from the genuine original. The field of work thus brought to light is extensive, and as soon as the final report of the results achieved is prepared, we shall be in a position to make out a strong case for renewal of the grant for search of Bardic Chronicles.

In the domain of the Natural and Physical Sciences, we have a number of important papers

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embodying recondite researches which it is not easy to make intelligible to the lay mind. It is sufficient to say that two further instalments have been published of the monumental work of Mr. Gamble on the Flora of the Malayan Peninsula. Dr. Praphullachandra Ray and his pupils have made important contributions, well calculated to maintain the reputation of the chemical laboratory of the Presidency College. Dr. Annandale has given us a paper on some recent advances in our knowledge of the freshwater fauna in India, and we are all grateful to him in that he puts the most recondite things in Zoology in a way intelligible to persons, who, like me, can make no pretension to technical zoological knowledge; that is an invaluable gift not possessed by many, and I am afraid that even those who possess it, do not always feel inclined to utilize it for the benefit of the non-technical reader. To guard against any possible misconception, I may be permitted to lay stress here on the fact that the scientific papers published in our journal do not by any means afford a fair indication of the true extent of the scientific activities of our members. It cannot be overlooked that their researches are, in the main, published in official periodicals specially maintained for the purpose. It would be, therefore, most unfair to institute a comparison between our publications now and

half a century ago and then to draw an inference adverse to the reputation of the present generation of our members.

I regret that the time at my disposal makes it impossible for me to give a more minute and more extended analysis of the work upon which our members have been engaged during the last twelve months : but I venture to express the hope that even this imperfect account may, in some measure, serve to indicate the unselfish devotion with which our members have endeavoured to advance the bounds of knowledge, to the best of their ability and with the limited resources placed at their disposal. No scholar, even superficially acquainted with the history of philological or scientific research, can legitimately express a disappointment that epoch-making discoveries are not made once in every twelve months. The work which lies before the investigator of the present generation is full of obvious difficulties, and he can hardly be expected nowadays to announce striking results merely upon the reading of a new text, the deciphering of a new inscription or the observation of a hitherto unnoticed natural fact or phenomenon. The most patent truths have been already investigated and announced, and the most devoted student can ordinarily hope only to extend the bounds of knowledge in directions

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previously indicated and partially explored. In the accomplishment of this difficult task, the members of our Society have strenuously and successfully laboured, and I earnestly trust that they will pursue their enquiries with renewed vigour under the auspices of that distinguished statesman and scholar who has consented to watch our interests and preside over our deliberations during the next twelve months.

ASIATIC SOCIETY.

3rd February 1915.

Your Excellency, Ladies and Gentlemen,

I do not use the language of conventional courtesy when I say that I deem it a high honour to be permitted, in response to the call from the Chair, to address this annual gathering of our members, and to place before them a brief outline of the present position of the Society and a rapid survey of the activities of our scholars and investigators during the last twelve months.

It is satisfactory to note that the numerical strength of the Society has been fairly maintained during the last year. Seven years ago, there was a rapid rise on account of the large accession of strength to the newly founded medical section, and the maximum was reached in 1911. Since then, there has been, as might have been expected, a slow decline, and during the last year, we had on our rolls precisely as many members as in 1909. This circumstance has slightly affected our financial situation; but, happily, there is no ground for alarm or anxiety. The popularity of the Society continues unabated, and the decline in numbers during the last year is due, in some measure at least, to the war; for many of our members

are absent in Europe to take part in the titanic struggle between militarism and civilization, which has riveted the attention of the civilized world. Not only have we thus lost in subscription, but we have also suffered on the otherwise steady income from the sale of publications on the Continent, and it is not a matter for surprise that two cases of books, sent to our agents before the outbreak of the war, are now on a steamer which has deviated from her voyage and lies interned at Syracuse. In these unfavourable circumstances, the question of the erection of a new building for the Society, which has been recognized as a pressing need in recent years, has necessarily been postponed for the present. These must be classed as inevitable accidents from which even scholars engaged in the pursuit of peaceful avocations are occasionally liable to suffer. It is a matter for keener regret, however, that this unforeseen financial difficulty has compelled us to restrict our expenditure on the purchase of new books. This is distinctly a cause for disappointment to our members, as in various important branches of knowledge, foremost amongst them anthropology and archaeology, ours is practically the only reference Library accessible to scholars in Calcutta.

Let us now turn from the story of our internal administration, not always free from

troubles and difficulties, to an appraisalment of the literary and scientific work of our members: here, at any rate, it is a pleasure to find that our high standard has been maintained and that there is no legitimate ground for dissatisfaction. In the field of Philological and Antiquarian Research, the most interesting of the papers published during the year is a memoir contributed by Dr. Sten Konow, in which he has deciphered six manuscript leaves recovered from Khotan and acquired by the Society from a Central Asian traveller some years ago. The text, now first published, gives the fragments of a Buddhistic work written in the ancient Aryan language of Turkistan, and enables us, even in its fragmentary condition, to obtain a glimpse of the type of Buddhism which prevailed in Central Asia in by-gone ages. Two other papers of considerable interest to students of ancient Indian History and Culture have been contributed by two well-known scholars: in the first of these, Dr. Satischandra Vidyabhusan seeks to establish that the hymns of the Rigveda were not all composed by the Aryans before they entered India and settled in the Punjab, and that some at any rate of the hymns were composed in later times when the Aryans had advanced as far as the river Kausiki in what constitutes the modern District of Darbhanga. This thesis is

of a highly controversial character, and deserves careful scrutiny by scholars who maintain that the Rigveda, the earliest monument of Indo-Aryan civilization, was composed while our forefathers still occupied the plains of Asia Minor. The other paper, to which I have adverted, has been contributed by Dr. Jivanji Jamshedji Modi, who takes us back to times equally remote and traces out references to India in the Avesta of the Parsees. Of papers purely historical, we have several valuable specimens. Babu Rameschandra Majumdar, who has devoted himself to the investigation of many an obscure problem relating to the history of India at the beginning of the Christian era, seeks to prove that Chastana, the founder of a long line of Saka Kings, flourished at Ujjain in the last quarter of the first century of the Christian era. Babu Nalinikanta Bhattasali, another well-known research student, gives an interesting account of the kingdom of Samatata in what is now modern Comilla, whose rulers were powerful sovereigns in the seventh century but have now passed into oblivion. The Rev. Father Hosten has, with great industry, edited Monserrate's work on the first Jesuit Mission to Akbar, which not only gives in detail the history of the first Christian mission in Northern India, but also incidentally furnishes an account of the

campaign of the great Emperor against Kabul. Father Hosten has also given an account of Father Jérôme Xavier's Persian lives of the Apostles, which was presented to Akbar in 1602. In another paper on the Twelve Bhuiyas or Landlords of Bengal, the same learned author seeks to maintain the position that the Council of Twelve is an ancient institution in India. The inference may possibly be true, but the generalisation is by no means conclusively supported from the data as yet available. These are all papers of considerable importance, but any review of the philological work of the Society during the last twelve months would be open to the charge of incompleteness, without mention of two contributions important to the student of Indian Philosophy, I mean, the Catuhsatika of Arya Deva, by Mahamahopadhyaya Haraprasad Sastri, which elucidates the philosophical literature of the Mahayana Buddhists, and the paper by Professor Banamali Chakrabarti in which he shows that Moksha or liberation, according to the Nyaya, was a condition not devoid of pleasure.

When we pass on from the philological papers to the anthropological contributions, we find them equally varied and interesting. I use the term anthropology in a comprehensive popular sense, so as to include all papers

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illustrative of the manners, customs and religion of the people. Mr. Coggin Brown gave fascinating accounts of stone implements from Yunnan, as also of grooved stone hammers from Assam and Eastern Asia. Dr. Annandale and Mahamahopadhyaya Haraprasad Sastri described relics of the worship of mud turtles in India and Burma, which are kept as sacred animals in such distant places as Puri, Sambalpur, Chittagong and Mandalay. Dr. Satischandra Vidyabhushan gave a complete code of monastic laws of Tibetan Buddhists, which, I hope, will be some day contrasted with the rules which regulate the lives of the various sects of monks and ascetics in this country. Finally, we had an interesting note by Babu Nilmani Chakrabarti on such stories from the Pali Jatakas as indicate a belief in spirits and the efficacy of their propitiation. It is necessary to lay stress, however, on the fact that what is here popularly accepted as anthropology would hardly be deemed deserving of that appellation in scientific circles. Investigation in Anthropology on scientific lines is an impossibility without a knowledge of Biology, and in this country, there is unfortunately a singular lack of men adequately qualified by previous training for anthropological work on really sound and satisfactory lines ; the few who have the requisite

qualification are pre-occupied in other spheres of research. In view of the unquestioned importance of this work, I willingly avail myself of this opportunity to emphasize the opinion expressed by the Council of the Society that for the progress of anthropological studies in this country, it is essential that we should have on the staff of the Indian Museum a trained anthropologist as an assistant superintendent. Till funds are available for the employment of a duly qualified officer, an earnest endeavour must, however, be made to secure an adequate collection of books and periodicals, essential for a scientific study of anthropology. In this connection, an excellent suggestion has been made by our Anthropological Secretary as to the disposal of the grants hitherto made by the Government of Bengal and the Government of Assam with a view to facilitate the study of Anthropology. A part, at any rate, if not the whole, of these grants may, for a limited period, at least, be applied to build up an anthropological library, so as to place within the reach of intending investigators ample facilities requisite for study and research. Meanwhile, it is gratifying to find that we have just published at least one work on anthropology, which will do credit to the Society and enhance its reputation, namely, the profusely illustrated monograph on the Abors and Galongs of the Assam Himalayas

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by Sir George Duff Sutherland Dunbar, with its anthropological appendix by Messrs. Coggin Brown and Kemp.

The record of the contributions received by us in the domain of the physical and natural sciences is by no means disappointing, is, indeed, distinctly encouraging. It would be idle to ignore the well-known fact that in branches of knowledge like Zoology, Botany and Geology, there are recognized organs of communication of the original work accomplished by our investigators, such as the publications of the Geological Survey, the Botanical Survey and the Indian Museum. On the other hand, in the domain of subjects like Physics and Chemistry, if the result achieved has no special local interest, the investigator not unnaturally seeks to bring his work to the notice of his fellow-workers in the same department and to the learned world at large, through the medium of special organs of communication. I am inclined to maintain, consequently, that if we do not take an unreasonable view of the actual relation of the Society to the entire aggregate of scientific activities in the country, there is no occasion to be dissatisfied with the contributions made by our members in the department of Physics, Chemistry, Zoology, Botany and Geology. We have, in the first place, published a series

of important papers read at the first Indian Science Congress held last year in this city under the auspices of the Society. Indeed, I think we may safely maintain that all that was not of ephemeral interest and was worthy of permanent preservation have found a place in our publications. In addition to this, we have continued the publication of zoological papers dealing with the extensive collection made by Dr. Annandale in Galilee. We have also published an extremely interesting account of the fauna of the limestone caves of Burma and the Malay Peninsula by Dr. Annandale and Messrs. Coggin Brown and Gravely. I have selected these papers out of a large number for special mention, as they are specimens, not of isolated investigations, but of continuous pieces of work carefully planned and systematically undertaken. At the same time, I have not the remotest desire to under-rate the value of other scientific contributions to which I am unable specifically to refer; some of them are unquestionably of great practical importance, for instance, the work of Professor Jackson and Mr. Mukerjee on the Quadrant Electro-meter, which will make it possible for investigators to carry on their researches on Radio-activity and Ionization of Gases continuously throughout the year, whereas, hitherto work in these important

branches of Physics had to be suspended except in dry weather. This brief and imperfect review of the activities of our members during the last twelve months is full of hope and promise, and this encourages me to claim your indulgence this evening, while I venture to call attention to other fields of investigation to which the energies of our scholars may, I trust, be profitably directed.

One important department which still awaits systematic exploration by the assiduous and brilliant investigator is that of Tibetan Studies. Here, indeed, is a field which, it seems to me, should have a special attraction to our members interested in philological and antiquarian studies. It was through the never-failing exertions of the great Hungarian scholar, Alexander Csoma de Koros, one of the most illustrious names on the bead-roll of our members, that the mysteries of the Tibetan language and literature were first satisfactorily solved. To the intuitive insight and penetrative genius of Csoma, we owe the first Tibetan Grammar and Tibetan Dictionary published by us, and though much has been investigated and brought to light since his days, his pioneer work has never been superseded. Since then, the supreme importance of Tibetan studies to the investigator of the history, religion and culture of early and mediæval India has been

realized in an ever-increasing degree. It is now well-known that there lie imbedded, in the great Encyclopaedias constructed by the industry of Tibetan Lamas under the patronage of accomplished rulers, versions of Sanskrit works the originals whereof have long disappeared from the country of their birth. It is only during the last twelve months that the Society has been able to complete the publication of the Avadana Kalpalata of Kshemendra, the Sanskrit text whereof, nowhere available in India, was discovered in Tibet written in Tibetan characters and accompanied by a beautiful Tibetan version. The restoration of this monumental work has occupied for many years three distinguished editors, one of whom, Pandit Harimohan Vidyabhushan, at one time the Oriental Librarian of the Society, died in the early stages of the publication, while the other two, Rai Saratchandra Das Bahadur and Dr. Satischandra Vidyabhushan, have spent a life-time in the accomplishment of the laborious task committed to their care. To take another illustration, Mahamahopadhyaya Haraprasad Sastri has just acquired for the Society the manuscript of a commentary by Pundarika on the Laghu Kalacakrayana, called Bimalaprabha. The manuscript is believed to be more than nine hundred years old and brings to light an important work which

has hitherto been assumed to be irrecoverably lost and has been known only in its Tibetan version. A close comparison of the long lost original and of the version preserved in Tibet would obviously be of the greatest interest and would at once throw light upon the question, through what developments, if any, the work has passed. But apart from the intrinsic interest which attaches to Tibetan studies from the Indian point of view, we must not overlook the patent fact that as Tibetan studies have in recent years attracted the attention of well-equipped scholars throughout the learned world, Indian investigators, unless they pursue the path steadily and assiduously, will soon find themselves outstripped and hopelessly left behind. Since the British Expedition to Tibet in 1904, these studies have made considerable strides, and scholars have now at their disposal original texts which were practically unattainable to men of the last generation. In Calcutta for instance, complete copies of the Tanguyr and the Kanguyr are accessible both in the Library of the Society and the University. Elementary readers and text-books have been prepared at the instance of the University, which has also published an elaborate grammar of the Tibetan language prepared by Mr. H. B. Hannay, an advocate of the Calcutta High Court. Beginners have further the

benefit of useful manuals, one by Mr. Henderson, and another by Mr. Bell, the British Political Resident at Sikkim. In addition to this, editions of original Tibetan texts have been made available to scholars by the publications comprised in our Bibliotheca Indica Series and in the Bibliotheca Buddhica Series of Petrograd. Work of first rate importance has also been accomplished by the Buddhist Text Society of Calcutta, under the joint editorship of Rai Bahadur Saratchandra Das and Dr. Satischandra Vidyabhushan. They have opened up a new mine of knowledge, of inestimable value as a contribution to the study of Indian Philosophy, as has been freely acknowledged in no ambiguous terms by such an exacting scholar as the late Prof. Max Muller in his treatise on the six systems of Indian Philosophy. We are further indebted to Dr. Max Walleser for the Tibetan version of the commentary of Buddha-palita on the Madhyamika Sutra, and the Prajna Pradipa of Bhavaviveka, to Prof. Louis de la Vallee Poussin for the commentary Chandrakeerti and of Bineeta Deva on the Nyayabindu, to Prof. Sherbatsky for the text itself of Nyayabindu with the commentary of Dharmottara, and to Babu Pratapchandra Ghosha for the Satasahasrika Prajna Paramita. But for the publication of these works, it would

have been impossible for scholars to obtain an accurate and comprehensive view of the Madhyamika Philosophy. In the way of lexicographical work, we have the epoch-making Dictionary by Rai Bahadur Saratchandra Das published under the patronage of the Government of Bengal, and the Tibetan version of the Amarkosha, the oldest metrical lexicon in the Sanskrit language, edited by Dr. Satischandra Vidyabhushan together with a commentary called the Amaratika Kamadhenu by a Buddhist sage named Subhuti, possibly the oldest commentary extant on the original work. We have further in hand the Tibetan-Sanskrit-English Vocabulary of Mahabutipatti, transcribed from the Tibetan Encyclopædia by Alexander Csoma de Koros, of which the original manuscript is one of our most precious possessions; under the editorship of Dr. Ross and Dr. Satischandra Vidyabhushan, nearly two-thirds of this great undertaking has been already accomplished. The scholar last mentioned has also published the Sragdhara Stotra with an English version, which throws considerable light on the Buddhist Tantra literature of the eighth century. Amongst biographical and didactic works, may be mentioned the Namthar, an autobiography of Milarupa, a peripatetic saint of the thirteenth

century ; the Gurbūn, a collection of sacred songs of that saint : the Byachoi, or Religion of Birds, which enshrines moral lessons of of striking beauty—all made accessible by the labours of Dr. Satischandra Vidyabhushan. Amongst historical works, we have the Kesarsaga which embodies the romantic story of the Emperor Kesar, edited by Rev. A. H. Francke, the author of a history of Western Tibet. In the department of philosophical writings, we have the History of the Mediæval School of Indian Logic, originally composed by Dr. Satischandra Vidyabhushan as a thesis for the Degree of Doctor of Philosophy and subsequently published by him under the auspices of the University ; this has made accessible to us an elaborate account of Buddhist Logic recovered from Tibetan sources, and its value as a contribution to the history of philosophic thought may well be judged from the extensive quotations made therefrom in the monumental work in Italian on Indian Philosophy by Dr. Luigi Sualì of the University of Bologna. But even when we have faithfully recounted the labours of Tibetan scholars in recent years, the fact remains unquestioned that vast tracts of territory still lie unexplored, as we have not yet been able to catalogue even the contents of the two great Encyclopædias. Dr. P. Cordier, whose loss we keenly feel and

deeply mourn, had taken in hand the compilation of a catalogue of the Tanguyr, of which two volumes have been published in the Bibliotheque Nationale of Paris. Dr. Hermann Beck has undertaken a catalogue of the Kanguyr, and has already published a volume in the Koniglichen Bibliothek of Berlin. Finally, our Society has for some years past engaged a Lama who has made considerable progress with the preparation of a descriptive catalogue of both the Tanguyr and the Kanguyr, under the guidance of Dr. Satischandra Vidyabhushan. We have thus ample evidence that substantial progress has been made in Tibetan studies during the last ten years and that our Society and its members may justly feel proud of their contributions in this department. We now require fresh accession of strength to our band of workers, for the task to be accomplished is inexhaustible and will furnish ample occupation to successive generations of investigators.

Another promising field of investigation, of which we hardly realize the extent at the present moment, lies in a very different direction, I mean the Bardic and the Historical Survey of Rajputana. Not many years ago, the Government of India placed at our disposal a sum of Rupees two thousand and five hundred to enable us to obtain a preliminary

survey of the work to be accomplished. Our endeavours to secure the services of a competent scholar in that part of the country proved fruitless, and even a beginning was not made till Mahamahopadhyaya Haraprasad Sastri volunteered his services. The preliminary report submitted by the Sastri embodies the results of his tour and personal enquiry, and is an extremely interesting document. Since then, the Secretary of State has appointed an accomplished and enthusiastic Italian Scholar, Dr. Tessitori, to undertake a regular survey of the Bardic Chronicles of Rajputana. Dr. Tessitori, who has spent the best part of a year in Rajputana and has collected valuable information as to the bards and their compositions, has submitted a comprehensive scheme for the survey, which has been accepted by the Council of the Society and is now before the Government of India. I am not now concerned with the question of the value of the preliminary report submitted by the Sastri. It seems to me that the question which really interests scholars as well as the educated public is the value and significance of the great work about to be undertaken, and on this aspect of the matter I shall, with your permission, make a brief reference in the course of this address.

The Bardic and Historical Survey of Rajputana is a work which has a two-fold

importance, historical and literary ; it has also a political importance, which cannot be altogether ignored, though it may not weigh with the theoretical investigator. The double importance of the survey is shown by its object, which is to rescue from oblivion and save from probable destruction an entire literature of an almost exclusively historical character, and, at the same time, in the particular case of Bardic poems, of the highest literary value. As the whole of this literature exists only in manuscript and is scattered all over Rajputana, it has always been impossible to know how vast it is, but the little portion of it that has come to the knowledge of a few investigators is sufficient to enable one to guess how extensive the mine must be. The period covered by this literature extends from about the fourteenth century A.D. to the present day, five or six centuries in all ; but, in scattered couplets first preserved in the oral tradition and only in comparatively recent times committed to writing, we have records which date back to a still greater antiquity.

The most characteristic feature of this literature is that it is the literature of a particular caste, the Rajputs. It seems to have arisen under the aegis of the Rajput political power, not long before the first Muhammadan invasions, and to have flourished under the enlightened patriotism of the Rajputs. It is

to the Rajputs, therefore, that the ultimate credit is due, not a small credit for a race of warriors, who in the pause of arms found time to devote to literary pursuits. May be, their action was inspired by a desire to gratify national vanity, as the subject of this literature was principally furnished by their own military exploits; but to show that they were not devoid of a literary taste, examples can be quoted of warrior kings who were good judges of poetry, as also excellent composers. There was, therefore, an intelligent maecenatism. It is superfluous to add that the fact that this literature is confined to a description of the life and history of the Rajputs, does not diminish its importance nor impair its universal character, as during the times in question, the Rajputs were the principal ruling race and the only makers of history.

This vast literature falls naturally into two sections: Bardic poems and prose chronicles. The former, which are older in origin and more extensive, are the products of the Bards, and they have both a literary and an historical interest; whereas, the latter are the products of different classes of people and their interest is only historical.

If under the term "bardic poems," we comprehend all kinds of bardic poetry, we have here a literature which includes works ranging

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from a single couplet to poems of eight to ten thousand verses. Its earliest products are isolated couplets, mostly anonymous, composed in a simple and often rude style and devoid of rhetorical embellishments. Some of these were undoubtedly composed as early as the fourteenth, possibly the thirteenth century, and were for a long time preserved only in oral tradition, so that when they were committed to writing, they had been already much modernised in form. To-day they are found collected in manuscripts, mostly under the general title of Phutkar Geeta, meaning scattered or miscellaneous songs and mixed with other songs of a more recent composition. Their chief value consists in the fact that they generally record some historical event or date, and since—when genuine—they are obviously contemporary with the event recorded, they afford unimpeachable historical evidence. An illustration of this kind of traditional couplets is the following *duhas*, which commemorate the foundation of Jodhpore and Bikaner :

“In the year Samvat fifteen hundred and fifteen, on the eleventh of the month of Jyastha, on Saturday, Jodho built the fort Meharana,”

“In the year Samvat fifteen hundred and forty-five, on the second day of the bright fortnight of Vaisakha, on Saturday, Viko laid the foundation of Bikaner.”

Here is another specimen, which celebrates the wonderful rapidity with which the Rathors established themselves in Rajputana and Gujarat after the fall of Kanauj under Mahomedan invaders :

"Like the sky is surrounded by the stars, so was the earth surrounded by the Rathors ; Chohils, Mohils, Cavadas, Solarikis and Gaurs —all these races were killed by the Rathors in Pali, where they had gone to marry. Having come from Kanauj, taking forces for some expedition, the Rathors seized the Gohils by the neck and took from them Kher, with the power of their sword. Further, they spread their oath (i.e. rule) over Idar and Sankhadar and took the nine Castles of Marwar along with Sam. Thus, sword in hand, the Rathors deprived of their power many other kings. And this was done by the three of the Rathor Siho of the Solar Dynasty, namely Asathama, Soninga and Aja."

There is a class of these traditional songs, which is known under the title of "Sakh Ra Geeta" or "testimonial songs," and they are quoted in prose chronicles as evidence of the correctness of the facts related. Here, again, when these testimonial songs are genuine, that is, contemporary with the facts in question, they can well be classed as historical documents. An example is furnished by the following song,

which records a battle fought at Kusano, against odd forces of Mahomedans, by the Rathor Varjag, under the reign of Satal of Jodhpur, the founder of Satalmir towards the middle of the fifteenth century. The battle is compared by the bard to the gigantic fight in the Mahabharata.

“Like the great war fought by Arjuna in the Kurukshetra against the valiant Kauravas, such a battle Varjag fought at Kusano, against the Mahomedan forces, hand to hand. Like in the great nocturnal fight (described in the Mahabharata) Varjag fought all night long, and like in the diurnal fight (in the Mahabharata), he fought in day time. In the same way as Arjuna fought for Yudhishthira, thus Varjag fought for Satal. In the same way as the Kauravas were decimated in the Kurukshetra, so were the Mahomedan thieves at Kusano, and in the same way as Vishnu by coming to the aid of Yudhishthira procured him victory, so did Varjag to Satal.”

Huge Bardic poems also exist in good numbers. Each Rajput State has its own collection. In Marwar, one of the most famous is the Suraj Prakas by Karni Dan, a distinguished Carana, whose manifold abilities as a politician, a warrior and a scholar are eloquently described by Col. Tod in the tenth chapter of his Annals of Marwar. The poem

comprises 7,500 stanzas. The subject is a description of the reign and exploits of the Rathor Maharajah Abhai Singh of Jodhpur, with whom Karni Dan was contemporary, and in whose politics and wars he played a prominent part. But, like all huge poems, it contains a mass of other information, foreign to the principal subject, but deemed essential and indispensable for the dignity of the work as well as the scholarly reputation of its author. Most of this extraneous matter is given as an introduction, and it is a kind of paraphernalia, never absent from any Bardic work of importance. Indeed, in this respect, all huge Bardic poems are framed much on the same plan. First comes a series of propitiatory verses in the form of *stuti* to the five deities, Ganapati, Sarasvati, Siva, Suryya and Narayana; next, an explanation of the title and subject of the poem, and after this, a *rajavamsavali* or genealogical sketch of the ruling family to which the hero of the poem belongs. This *vamsavali* is not a mere string of names; it occupies over one third of the whole work, and is a poetical history of the Rathor family from its mythical progenitor Brahma down to Abhai Singh. Since tradition traces back the Rathor family to the Solar dynasty to which Rama belonged, this *vamsavali* naturally contains also an account of Rama, a miniature Ramayana

not altogether devoid of interest. The biographical and historical particulars concerning the other members of the family naturally become richer and richer as we get down with the times. The most diffuse account is that of Maharajah Ajit Singh, the father and predecessor of Abhai Singh, and here the description of the deeds of the latter, as heir apparent to the throne, plays a prominent part. With the installation of Abhai Singh at the hands of the Emperor himself, the poem may be said properly to begin, and the auspicious occasion gives the bard an opportunity not only to describe the coronation festivities, but also to draw a gorgeous picture of the splendour of the Court in Jodhpore and the lustre of the Durbar. This picture starts with a description of the magnificence of Jodhpore, the splendid gardens, the Monarch and his Court ; and the description is embellished and vivified in such a way as to enable the poet to make a full display of his erudition. To take an example : when describing the singers in the Presence, he manages to insert a scientific enumeration of the various tunes and musical instruments, and when describing the Pandits and the Caranas, he similarly adds a minute description of all their Sanskrit learning and poetical abilities. But Karna Dan does not stop here. He imagines that Abhai Singh asks him about

the six *bhasas*, and he devotes pages to explain their nature. They are, Sanskrit, Nagabhasa, Apabhramsa, Magadhi, Sauraseni and Prakrit, the last including Braja, Marwari, Panjabi, Marathi, Sorathi and Sindhi. He also quotes his authorities, the Sarasvati for the Sanskrit, the Nagapingala for the Nagabhasa, the Vinadavijaya for the Apabhramsa, the Haimavyakarana for the Sauraseni and the Jainasastra for the Magadhi; for the vernaculars which he includes under the term Prakrit, he cites no authority, as, he says, he knows them by practice. It is important to note that the knowledge of the six Bhasas is considered an indispensable qualification for any Carana of fame. After this long introduction, the poetical chronicle of the reign of Abhai Singh begins at last, though the bulk is devoted to a pompous description of Abhai Singh's splendid campaign against Sir Buland. Further reference to the Suraj Prakas is needless, as quotations will be found in the Annals of Marwar by Col. Tod, who used the poem as the principal source of information for events relating to the period in question.

It follows from what I have stated that Bardic poems, whether short or long, are capable of use as historical documents, specially when contemporary with the facts related. No doubt, when we utilize them as such, it is

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necessary to proceed with great circumspection and allow for exaggerations, for disguises of unpleasant particulars, which is a rule with the bards, who, above all, are favourites of the monarchs and are anxious to please them. But Bardic poems are also important as literary documents. They have a literary value, and taken together, form a literature, which, when better known, is sure to occupy a most distinguished place amongst the literatures of the Neo-Indian vernaculars. The language in which this literature is written and which has remained practically unknown and neglected to this day, is only a form of the Old Western Rajasthani, that is, the old vernacular of Rajputana and Gujarat. I do not propose to deal with it in detail on the present occasion, as Dr. Tessitori has gone into the question in his paper on the Bardic and Historical Survey of Rajputana, and in his Notes on the Grammar of the Old Western Rajasthani. This old Western Rajasthani language, called by the bards Dingala, to distinguish it from Pingala (the Brajabhasa), marks a very important stage in the history of the development of the Neo-Indian vernaculars, as it forms the link between the Saurasena, the Apabhramsa and the Modern Gujarati and Marwari. Concerning this language, which had been first mistaken for simply the old Gujarati, Sir

George Grierson writes: "We have a connected chain of evidence as to the growth of the Gujarati language from the earliest times. We can trace the old Vedic language, through Prakrit down to Apabhramsa, and we can trace the development of Apabhramsa from the verses of Hemchandra down to the language of a Parsi newspaper. No single step is wanting. The line is complete for nearly four thousand years" (*Linguistic Survey of India*, Vol. ix, part ii, p. 327).

But I will leave aside the linguistic importance of the Bardic productions here, and look at them from the literary point of view. I have already said that these poems have a literary value. The bards, in general, and particularly Caranas, who are the most distinguished amongst them, have been in many cases men of letters, and they have specially been so when residents at Court. Many of them knew not only Dingala and Pingala—the languages used in Bardic poetry—but also Sanskrit, and their attainments were such that titles like Kavisvara, Kaviraja were often conferred upon them. Tod, in the tenth chapter of his *Annals of Marwar*, alludes to the long and difficult studies requisite to form a Kavisvara. Amongst the many subjects, which a Carana had to master before he could hope for fame, there was, besides

works on grammar, rhetoric and history, a knowledge of the six bhasas, and though this knowledge in many cases was nothing more than an empty show, yet the fact that it was considered an indispensable qualification for a Carana, is testimony to the encyclopædic character of the learning a Carana was expected to possess. No wonder, then, if many of the productions of these Caranas are literary masterpieces of the highest value.

Bardic composition is, in general, of a very elaborate kind. Prosody is always exceptionally correct, and none of the artificial devices which are thought to make poetry more attractive is ever neglected. One of these devices, the most characteristic, indeed, in Dingala poetry, so that it has become almost a rule in it, is the *bensaga*, and it consists in forming verses the first and last words in which begin by the same consonant.

गढपति मिले उज्जेशगढ

राजा जसी रतन ।

राम लक्ष्मण राठवड

किर दुरजोध करन ।

Another common device is the one called *anuprasa*, which means internal rhyme, as distinguished from Mohara, or final rhyme, and whereof many examples may be quoted :

सिद्धि किद्धि किद्धर करोखा के नगीच नौच ।

It has been said that, of the two languages used by the bards, Dingala and Pingala, the former is the more suited for heroic or warlike subjects, and the latter for amorous topics, and this is true to a certain extent, Dingala, with its richness in cerebral consonants, sounds much more harsh and masculine to the ear, than the comparatively effeminate Pingala, in which dentals have a prevalence over cerebrals. But this should not be taken to mean that Dingala is incapable of musicality and unfit to represent tender sentiments. Take the following gita verses as an example :

बन जो तरफ घटा बरसारे ।	कैकी मसत होय कीहोकारे ।
सुजल अयाह प्रेक्षियौ सारे ।	पण आली कद पौव पधारे ।
उभट जीव लग रहौ उदासौ ।	थाप अंत उर बाट बधा सौ ।
देख' बाट एरौ सुख दासौ ।	आ कह रौ बालम कद आसौ
भिरण रह' इक टक सैण' स' ।	बोहौ मववार कह' बैसा स' ।

"The clouds densely assemble in the four directions and the intoxicated peacocks utter their cries. Deep torrents of water have (already) spread everywhere, but, tell me, my friend, when will my beloved come? My soul is upset and I have grown disheartened, and the rain has penetrated into my heart in the form of some (terrible) pain. I am watching the way from where he is to come; listen to me, my maid; tell me when will my beloved come? (When he will come) I will keep gazing (at

him all time) with my eyes fixed (on his face) and I will make many entreaties to him in (sweet) words, (so that he will never leave me again)." The subject is evidently a description of the anxiety of a Virahini on seeing the rainy season set in, whilst her husband is still away.

To give an illustration of the Virarasa, that is, of the heroic style, for which Dingala is so famous, I cannot do better than quote an extract from the Asiati Ahaba, a poem on the great European war now in progress, written by Carana Kisor Dan of Jodhpore. The subject of the extract is the heroic resistance offered by the Belgians to the German invaders, and it is interesting to see how Western things appear to the eyes of the living bard of Rajputana. He knew that there are neither elephants nor armoured horses in the present European war, but he could not possibly think of a great battle without them. Here is the passage in question :

इहो

बेखजियम जुध वीर वर । जग्गा आभ कइत ।

धर अंवर धंवे टकी । भाखा आग कइत ॥

हंद चोटक

कइ आग दसंग गयंद कइ । पखरैत पटैत उखट पइ ।

बलचित्त अजाय चुके चटकी । नभ जाख कुलह खिसी नट की ॥

अध ऊध गिरंदर बंदर ली । खिस आग कुलाय पड़े धर ली ।

बट वेग भड़ा कर तेग बड़े । पइ सुंठ रकेन सुं हंठ रहे ॥

वज्रराज समेत दृष्टे धरणी । दिव्य शीपय तेव इसी करणी ॥
 भव क्षेत्र सुदृग समेत धरा । पङ्क्ति नभ हन्ते दुर्गन्ध धरा ॥
 वर तेव कठे केई वीर वटे । चित्तवीर उमीर उमंग वटे ।
 कव तीव्र कवक वदक धरा । उद्धरत करक वसु विधरा ॥

"In the Belgian field of war, the egregious heroes fight (standing so boldly that their heads seem to touch) the sky. Earth and sky are covered by smoke and fire comes down in showers from the blaze (of the guns). Fire showers, and its mere sparks (are so fierce that, on being hit by them) elephants drop down (dead), and armoured horses and champions fall reverse. (So helplessly they fall), as acrobats who on the music suddenly coming to a stop, drop down confused from the air, head foremost ; or as monkeys which, half-overtaken by sleep, loosen the grasp of their hands and tumble down from a rock to the earth. With increasing excitement, the warriors go on dealing blows with their swords in their hands ; heads drop off, and headless bodies remain on saddle, their feet entangled in the stirrups, till at last they fall to the ground together with the horses. Now, this is the comparison I give of them : they look to me like the headless body of (the demon) Ketu falling to the earth, along with his horse, on being brought down from the sky by the hand of the sun. There you see some heroes advancing with their naked

swords in their hands : whilst the steady-minded emirs are transported with the joy (of the battle). The machine guns make the earth rattle and clatter, and the wavering flags spread on the ground."

From the above example of poetry of recent composition, one might possibly be induced to think that the bardic activity continues as lively as ever. Nothing can be a greater mistake. The bard of Jodhpur who celebrates the events in the modern European struggle is a rare exception. Now, Jodhpur has been from the very beginning a cradle of bards ; only one year ago it could boast of a Carana, the late Kaviraja Murari Dan, who was reputed the most learned bard in Rajputana. But he too was rather a scholar than a professional bard, and his most famous work, the Jaswant Jasobhusan, is a work on rhetoric. The fact is that professional bards have grown rarer and rarer in recent years : their sons have steadily taken to different pursuits, and are not initiated in the learning of their fathers. The reasons for this decline of bardic activity are two-fold. First, bards are no more cherished and patronized by the Chiefs as they were in former times, and their verses are no more rewarded with generous and princely grants. The *lakhpasao* or donation of a lakh of rupees, which was common enough in former

times, has become a mere tradition of bygone ages. Secondly, there has been in modern times an absolute absence of materials for bardic songs, that is, of warlike deeds, which are the chief, and, we may say, the only source of inspiration of the bards. The outbreak of the great European war must have been greeted with the utmost enthusiasm by the Carana Kisor Dan, who at once started his *Asiati Ahab*. The poetical genius was not extinct in him, but only waited for an opportunity to reveal itself, and the departure of Maharaja Sir Pratab Sing and Maharaja Sumer Singh for the theatre of the war, gave him a splendid opportunity of which he readily availed himself.

Let me now turn to the prose chronicles. Under this term, I include all kinds of historical works in prose, for which in Marwari we have a great number of terms such as *Khyata*, *Vata*, *Vigata*, *Vamsavali*, *Judhiya*, which exactly specify each of them. Taken together, these prose works form a rich literature, the interest of which is chiefly historical. Since these works have no literary claim and are not meant for publicity, they are, as might be expected, much more faithful and reliable sources of history than bardic poems. They are real and actual chronicles, written with no other aim in view than a faithful

record of facts, and their revelation is destined to destroy for ever the unjust blame that India never possessed a historical genius. The precise period when these chronicles first began to be composed cannot be ascertained with precision, till they are all explored; but from the materials Dr. Tessitori has examined in Jodhpur, it seems that, in that State at least, they were started about the end of the fifteenth century. This is to be taken to refer to regular and complete chronicles, but it is certain that genealogies were reduced to writing and traditions were orally preserved from long before that time. When regular chronicles began to be composed, they were incorporated with genealogies and oral traditions so as to form a complete and connected work starting *ab origine*. It follows that in the chronicles that start from the very origin of the race with which they deal, we have two parts: a traditional one from the earliest ages to the end of the fifteenth century in which historical facts have been altered and dates are more or less incorrect; and an historical one, which is contemporary with the facts related and therefore accurate and reliable. One of the beauties of these chronicles is their simplicity and impartiality. Most of them were composed privately, and chiefly by magistrates and clerks of the State, Pancalas and Muhnots. The

most conspicuous example is the Khyata or chronicle of Muhnot Neusi, formerly Hakim at Malarnō, and then minister to Mahārāja Jasvant Singh of Jodhpur from A.D. 1658 to 1667. It embodies the historical traditions of all the Rajput races, and was composed, partly from conversations of the author with the people of the different States, and partly from written documents that were available to him. In each case, the author makes it a point to cite his source of information, and the account is in all cases so impartial as to be beyond suspicion. I have mentioned but one example; but there are dozens and dozens of other Khyatas, which are not second to it in importance or accuracy. They are mostly found written in huge volumes, sometimes in the form of a leather-bound register, sometimes in the shape of a vahi or Marwari account book, and are preserved with great care by their possessors. In the particular case of Jodhpur, it was in the seventeenth century, during the reign of Jasvant Singh the First, that this chronological literature reached its climax. Of his reign we have so many documents, that from them we can reconstruct the history of the period with the greatest accuracy and minuteness. At that time, the Marwar State was a jagir of the empire of Shah Jahan, and the very powerful Jasvant Singh took a prominent part in the struggles

that led to the succession of Aurangzeb. From this point of view, the Marwari chronicles of the period reflect also the history of the Empire. Some of these volumes of Khyatas do not contain connected chronicles, but only miscellaneous accounts referring to different subjects of an historical character. To give an example of the many-sidedness of the information supplied, Dr. Tessitori has drawn up for me a list of the subjects in one vahi belonging to Carana Ganes Danji of Jodhpur, son of the late Kaviraja Murari Dan.

(1) An account of the Khavaria Rathors who under the title of Ravats ruled in Khavar, having first Nilmo for their capital, and afterwards Girab.

(2) A genealogical list of the Rathor kings of Bikaner

(3) A history of the Rathors from the earliest times to Maharaja Ajit Singh, the son and successor of Jaswant Singh the First of Jodhpur.

(4) Genealogies of the Rathor branches that ruled at Bikaner, Idar and Khiavaza.

(5) Miscellaneous historical information beginning with some old traditions of the Rathors, and containing particulars referring to Karamsi Jodhavat, Pabu Dhadhalot, Niba Jodhavat, Rao Rinamal and others, and indulging specially on the war between Rao

Malde of Jodhpur and Jetsi of Bikaner and on some events which happened during the sixteenth century of the Samvat Era, as well as on Akbar, on the genealogies of the rulers of Dilli, from Tuvar Dasrath to Aurangzeb.

(6) A genealogical sketch of the Sisodiyas of Udaipur, of the Kachvatras of Amber, and of the Devaras of Sirohi.

(7) Another genealogical sketch of the Sisodiyas.

(8) Genealogies of the Bhatias of Jesalmer.

(9) An historical sketch of the Budelas.

(10) A genealogy of the Hadas of Budi.

(11) A biographical sketch of Chohan Kanarde, ruler of Jater (thirteenth century).

(12) A collection of the traditions concerning the foundation of the principal strongholds and capitals of Rajputana, such as Mandor, Ajmer, Chitor, Jesalmer, Jator, and Sivana.

(13) A list of the temples, ponds, tanks and wells of the city of Jodhpur.

This list does not exhaust the contents of the vahi, which contains many other items, not less important than those which have been cited. Most of these items were all compiled under the reign of Jasvant Singh the first.

I trust what I have said makes it abundantly clear that the Bardic and Historical Survey of Rajputana is a work that is not only important, but is also urgent and necessary. I

have shown that it is important both from the literary and the historical point of view. Its historical importance is clear, when one thinks that all present histories of the Mahomedan period of India are compiled almost exclusively from Mahomedan sources, which do not always assign due weight to the influence of Hindu culture and civilization. It is obvious that to write an impartial history of India, Hindu sources should be taken into account at least in the same degree as Mahomedan sources. Fortunately, for the Rajput States, materials are abundant. It would be unjust to neglect them, and allow them to be lost or destroyed; the acquisitions to history that can be expected as the result of the exploration of these materials can never be overrated. The brave Rajput races, who are at this moment devotedly fighting for the cause of the Empire, are justly entitled to this much at least of consideration, that the history of their glorious past be investigated and preserved.

There is only one other topic to which I shall invite your attention before I bring this address to a close—a subject of striking interest, not merely to the scholarly investigator but also to the practical administrator—I mean the system of jurisprudence which regulates the lives of our Mahomedan fellow subjects. It has always seemed to me inexplicable why our

contribution to the cause of promotion of Arabic learning, so rich in diverse departments, should be exceedingly meagre and fragmentary in the domain of Mahomedan law. Our founder, eminent as a jurist as well as an orientalist, published in 1792 a translation of *Al Sirajiyah*, a treatise on the Moslem law of inheritance, with a commentary mainly based on the *Sharifiyah*; it is fruitless to speculate in what other direction his resources might have been employed but for his premature death two years later. Nothing substantial was added to the facilities for the study of Mahomedan Law by the members of our Society for more than forty years. In 1835, the battle which had long raged between the Anglicists, and the Orientalists in respect of the language best adapted as the medium of instruction for the people of this country, came to a close with the overthrow of the latter. The consequence was that the Government adopted what now seems an obviously illogical attitude, namely, that all oriental works then in hand should be discontinued, and a resolution was issued which explicitly directed that the sheets already printed should be sold as waste paper. The works thus abandoned included the celebrated *Fatawa Alamgiri*, a Digest of Mahomedan Law prepared by the distinguished Jurists of the Emperor**Aurangzeb* and named, like the Digest of Justinian and

the Code of Napoleon, after the monarch to whose genius it owed its initiation. The intervention of the Society saved the printed sheets of this monumental work from ruthless destruction and led to its completion under our auspices. This, together with the *Sahraya-ul-Islam*, which had been published a few years earlier, constitute the sum total of our contribution to the advancement of the study of Mahomedan Law. When we come to examine the work accomplished by scholars outside the pale of the Society, we are met with an equal scarcity of reliable translations of standard works on Moslem Law, as indicated in the opinion expressed by a distinguished Mahomedan Jurist, the Right Hon. Syed Amir Ali. "Neill Baillie's paraphrase of the *Fatawa Alamgiri* and Hamilton's translation of the Persian rendering of the *Hedaya* have been so far the principal works in the English language which give access to lawyers, not sufficiently familiar with Arabic, into the intricacies of the Hanafi Law. The Persian translation of the *Hedaya*, however, does not, in many cases, correctly represent the Arabic original, as the translators interpolated many of their own interpretations into the rendering; whilst Neill Ballie, in his desire to condense the matter by the omission of important passages and of the authorities on which the *Fatawas* are based,

has created a certain amount of confusion in the apprehension of the principles." This complaint, if I may say so without impropriety, is amply justified, and it is hardly creditable to us that we should in this respect come out not even second best when a comparison is instituted between the work accomplished here and elsewhere. To take one illustration, when we look forward to works on the Maliki School of Moslem Law, the foremost place must at once be assigned to *Precis de Jurisprudence Musulmane* by Dr. Nicolas Perron, which was published in six volumes under the patronage of the French Government in Algeria and is a translation of the celebrated work on Maliki Law, the *Mukhtasar* of Sidi Khalil. But it would be a mistake to suppose that this monumental work stands alone. We have further the *Balance de la loi Musulmane*, a translation by Dr. Perron of the *Mizan* of Al Sherane, one of the most important works on Moslem Comparative Jurisprudence; the *Code Musulmane* by Seignette, who furnishes an accurate edition of the Arabic text of the cyclopaedic work of Sidi Khalil with a new translation; the *Tuhfat al Hukkam*, a work on the duties of Judges, published with text and translation by Houdas and Martel; and the *Droit Musalmane* by Querry, who gives a complete translation of the *Sahraya-ul-Islam*,

the standard text-book on Shia Law. Nothing similar has been attempted here, except the *First Steps in Muslim Jurisprudence* by Mr. Justice Russell and Dr. Suraworthy, who are also the authors of a valuable work on the law of marriage. In addition to this, we have three valuable works on the Mahomedan Law of Waqf or Religious and Charitable Endowments by Clavel, Adda and Ghalioungini and Mercien; and two special treatises on the Musalman Law of Succession by Luciani and Clavel. I do not refer specifically to general works on Moslem Law, such as those by Zeys, Morand, Sautayra and Cherbonneau, many of which indicate considerable research into the original authorities. If we turn our attention for a moment to countries other than France, we meet with quite a number of important works on the Shafi School of Moslem Law published under the auspices of the Dutch Government for the benefit of their Moslem subjects in Java. Amongst these may be mentioned the *Fath-al-Karib* and *Minhajjat-Talibin*, of which the text and translation were published by Van den Berg; the result of his labours has been just made accessible to English readers by Judge Howard of Singapore. We have also an excellent edition of *Abu Shuja* with translation by Keijzer. These, taken along with the treatises of Juynboll, Kenu-de

Hoogenwoerd and Snouck Hungrouje must be deemed a quite respectable contribution of Dutch scholars to the study of Shafi Law. I shall not detain you with an enumeration of the contributions to the study of Islamic legal literature by Germany, Russia, and even Sweden, through the labours of scholars like Von Tornauw, Goldziher, Sachau, Kohler, Nauphal and D'Ohosson, all indispensable to the serious student of the various schools of Mahomedan Law investigated by them. I confess to a feeling of humiliation when I contrast the solid performance of the scholars mentioned, with the exceedingly little contributed by investigators in this country. Dazzled by the brilliant work accomplished elsewhere, which will for ever remain a standing testimony to the scholarship of those investigators and the munificence of their respective Governments, well may an eminent Indian Moslem express the hope that "the British Indian Government, in the midst of its executive and administrative preoccupations, may find time to take into consideration that most important question, the administration of the Musulman Law, which has supplied the Mahomedans of India with a substantial cause of grievance, together with the expediency of following the example of the French Government in Algeria and providing the Indian Judiciary with authorized

translations of the Fatawa Alamgiri, the Radd-ul-Mukhtar, the Mabsut and other works of like standing." It is our paramount duty as a learned Society to take the lead in the initiation and accomplishment of this great undertaking, to enlist the sympathy and co-operation of scholars, and to secure the necessary financial assistance from an enlightened Government.

I have detained you with my address much longer than I anticipated; but I felt that it was desirable not only to review the work accomplished during the last twelve months, but also to emphasise attractive fields of investigation. Our illustrious founder observed, with reference to the Society, the interests of which were nearest to his heart, that "it will flourish if Naturalists, Chemists, Antiquaries, Philologists and men of Science in different parts of Asia will commit their observations to writing and send them to the Asiatic Society at Calcutta; it will languish, if such communications shall be long intermitted, and it will die away if they shall entirely cease." The apprehension has been expressed in some quarters that during the second century of its existence, the Society shows visible signs of decay. I feel confident that this alarmist view is not well-founded. The field of our investigations is boundless and inexhaustible,

and notwithstanding the assiduous labours of scholars of bygone generations, the patient investigator of the present day has, at his disposal, unexplored territories, vast in extent and rich with treasures, sufficient to justify the devotion of bands of scholars for centuries yet unborn.

THE INDIAN MUSEUM.

28th November 1913.

Your Excellency,

The magnificent buildings which enclose within their walls one of the most popular and instructive institutions in the Indian Empire—the Indian Museum—are familiar to all visitors to Calcutta. The Board of Trustees of the Museum propose to celebrate the centenary of its foundation in a befitting manner during the early months of the new year. In view of this commemoration, a brief review of the story of the establishment and development of the institution may, I trust, be not altogether without interest to all residents of Calcutta, as also to a wider public.

To appreciate the history of the origin and growth of the Indian Museum, we must travel back to the last quarter of the eighteenth century, when, after the establishment of British supremacy in this Province, Sir William Jones, one of the profoundest scholars who have devoted their lives to the service of India, founded the Asiatic Society in 1784, and with the boldness which characterized his genius, stated that the bounds of its investigations would be the geographical limits of Asia and that within these limits, its enquiries would be

extended to whatever is performed by Man or produced by Nature. Sir William Jones, however, in his inaugural address did not expressly refer to the foundation of a Museum as part of the activities of the Society, which, at the time and for many years afterwards, had no habitation of its own. But curiosities sent in, from time to time, by members, began to accumulate, and in 1796 the idea was started that a suitable house should be erected for their reception and preservation. Donations were invited, but the plan proved premature, and it was not till the beginning of 1808 that the Society found itself in a position to occupy the premises erected at the corner of Park Street on land granted by Government. Six years later, definite effort was made to give effect to the intention to establish a Museum, when, on the 2nd February, 1814 Dr. Nathaniel Wallich, a Danish Botanist, who had been taken prisoner at the siege of Serampur but released in recognition of his scientific attainments, wrote a letter to the Society in which he strongly advocated the formation of a Museum and offered not only to act as Honorary Curator but also to supply duplicates from his own valuable collection to form a nucleus. The proposal found ready acceptance with the members of the Society, and it was determined to establish a Museum to be divided

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into two sections, one what would now be called archaeological, ethnological and technical, the other geological and zoological. The Librarian of the Society was placed in charge of the former section, while Dr. Wallich was appointed Superintendent of the latter. The scope of the Museum was defined in the widest possible terms, as an institution for the reception of all articles that might be sent to illustrate oriental manners and history, or to elucidate the peculiarities of Art or Nature in the East. Contributions were invited and specimens were solicited so that the Museum might include "inscriptions on stone or brass, ancient monuments, Hindu or Mahomedan, figures of Hindu deities, ancient coins, ancient manuscripts, instruments of war peculiar to the East, instruments of music, vessels used in religious ceremonies, implements of native art and manufacture, animals peculiar to India, dried or preserved, skeletons or particular bones of such animals, birds stuffed or preserved, dried plants and fruits, mineral or vegetable preparation peculiar to Eastern Pharmacy, ores of metals, native alloys of metals, minerals of every description," and other like articles serviceable to history and science. The Museum thus inaugurated thrived rapidly under the guidance of its enthusiastic founder Dr. Wallich, and individual collectors,

amongst whom may be mentioned Col. Stuart, Dr. Tytler, General Mackenzie, Mr. Brian Hodgson, Capt. Dillon and Babu Ramkamal Sen, readily placed at the disposal of the Society interesting and curious objects collected from various parts of the country. After the resignation of Dr. Wallich, paid curators were appointed from time to time for longer or shorter periods on salaries ranging from Rs. 50 to Rs. 200 a month. In 1836, however, the Society, whose resources had, a few years earlier, been crippled by the failure of the bankers, Palmer & Co., found itself in financial difficulties and memorialized Government for a grant of Rs. 200 a month from public funds to enable it to meet the salary of the curator. The memorial, which was written by Sir Edward Ryan, then Chief Justice of the Supreme Court and President of the Society, impressively set forth the absolute necessity for the foundation and superintendence, quite as much for the furtherance of Science as for the instruction of the Indian fellow subjects of the memorialists, of a public depository of the products of Nature in India and the surrounding countries, properly preserved, properly arranged, and properly applied. But, although the prayer of the memorial was limited to a grant of the modest sum of Rs. 200 a month, the Governor General in Council expressed their

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inability to accede to the request without reference to the Court of Directors, who were, as was pointed out, incurring considerable expense in keeping up a Museum and Library at the India House. It was conceded, however, that a Museum in this country could not be established by voluntary subscriptions nor maintained in the creditable and useful condition necessary for the attainment of the object desired, unless aided liberally by the Government, in like manner as similar institutions in Europe were supported from the public treasury. The members of the Society, however, were persistent in their demand, and presented a second petition for a temporary grant, pending reference to the Home authorities on the subject of the extension of the Museum and its conversion into a public institution; fortunately, this application was granted,

Dr. J. T. Pearson of the Bengal Medical Service was appointed curator and was succeeded, after a brief tenure of office, by the distinguished ichthyologist, Dr. McClelland. Meanwhile, the memorial of the Society for the formation of a National Museum at the cost of the State had been sent to the Home authorities, strongly supported and recommended by the Government of India. But the difficulties of communication in those days were so great

that it was not till 1839 that the Government could obtain a reply from the Court of Directors in London. The Court sanctioned a grant of Rs. 300 a month for the salary of the curator and maintenance of the Museum, and also authorized the Government of India to make grants from time to time for special purposes. Dr. McClelland, who had with great ability temporarily filled the office of curator, now resigned, and was succeeded by Mr. Edward Blyth, who had been selected by Dr. Horace Hayman Wilson in England. He proved himself ultimately to be an even more distinguished ichthyologist and naturalist than his predecessor.

Edward Blyth took up his duties as curator in September, 1841 and devoted himself to the duties of his new office with remarkable zeal; but as he was not a geologist, he found himself embarrassed in the management of the geological collections, which, at the time, were second in importance only to the archaeological collections of the Society. The difficulty of the situation was, however, successfully met by reason of the timely action which had already been taken by the Government of India. In 1835, the Government of India, encouraged by the satisfactory working of the coalmines at RaneeGUNJ and anxious to develop the mineral resources of the country (to which attention

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had been drawn by Dr. Helfer and other scientific officers), had decided to found a Museum of Economic Geology in Calcutta. This Museum was actually opened in 1840.

Shortly afterwards, in May 1841, Captain G. B. Tremenheere, who had been sent to England to secure a nucleus of a Museum of Economic Geology, returned to Calcutta with a large and valuable collection of specimens. These were deposited in the Society's rooms, and the Government of India sanctioned an additional grant of Rs. 250 a month for a separate curator. Mr. Piddington was appointed curator of the Geological collection inclusive of the specimens which were the property of the Society and which Mr. Edward Blyth had found it difficult to arrange. The Museum of Economic Geology thus constituted continued to occupy the premises of the Society till 1856, when the portion of the collection owned by the Government of India was removed and housed at No. 1, Hastings Street, in connection with the Geological Survey of India, then recently established. The Government, at the same time, expressed their readiness to receive the specimens owned by the Society; but this could not be done for the Society, though fully alive to the fact that the collection was likely to be better preserved, better laid out and better taken care of by the members of the

Geological Survey, refused to sanction their removal on the ground that the dissociation of a part of the Museum—and that the least expensive, highly valuable as it was—might not only prove injurious to the interests of the Society, but, possibly postpone indefinitely the great object which the Society had cherished since 1837, namely that of seeing a national museum established here on a scale worthy of the Metropolis of British India.

The transference of the Museum of Economic Geology, however, immediately relieved to some extent the steadily increasing pressure on the limited space in the premises of the Society, and, for a short while, more room became available for the display of the archaeological and zoological collections. But the latter had grown with surprising rapidity under the able management of Blyth, with the enthusiastic co-operation of the members of the Society; and it became fairly apparent that their further growth would before long be arrested by reason as well of the restricted space as of the limited funds at the disposal of the Society.

In view of these circumstances, in 1856, the members of the Society decided to submit a memorial to the Government of India for the establishment in Calcutta of an Imperial Museum, to which they expressed their readiness

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to transfer all their extensive collections except their library. The dark days of the Mutiny, however, most inauspiciously intervened, and the consideration of the proposal was necessarily postponed. Two years later, the question was revived and a representation was submitted to Government in which the Society pressed for the foundation of an Imperial Museum at Calcutta.

The Government of India, though fully ready to recognize its duty to establish in the Metropolis an Imperial Museum for the collection and exposition of specimens of Natural History in all its branches and of other objects of interest, physical, economical and historical, declined to entertain the project on financial grounds. At the same time, the Government of India renewed its offer to relieve the Society by taking over the geological and palaeontological collections.

The members of the Society, however, were insistent and decided to memorialize the Secretary of State for India in Council. The effort was successful, and, in May 1862 the Government of India announced that, in their opinion, the time had arrived when the foundation of a public Museum in Calcutta, which had been generally accepted as a duty of the Government, might be taken into consideration with regard to its practical realization.

Negotiations which now followed between the Government of India and the Asiatic Society were protracted till the middle of the year 1865, when it was arranged that the Society should make over to the Board of Trustees for the proposed Museum the zoological, geological and archaeological collections, and the Government should provide suitable accommodation for the Society in the Museum building, the portion allotted to the Society to be in their exclusive occupation and control. Legislative sanction was accorded to these conditions by the Indian Museum Act of 1866, and the valuable collections of the Society, accumulated during half a century by a long succession of enthusiastic members, were formally transferred to a Board of Trustees of which Sir Barnes Peacock, then Chief Justice of Bengal, was appointed President. The members included the Bishop of Calcutta, the Vice-Chancellor of the University and the President and three other representatives of the Asiatic Society. But although the negotiations had been carried on smoothly and harmoniously and had received legislative sanction, difficulties of a grave order emerged as the erection of the Museum building made slow progress. It was realised before long that the building as planned

¹ The geological collections were not transferred actually to the Trustees but to the Geological Survey

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could not possibly find accommodation for the Asiatic Society in addition to the Geological Survey and the Natural History Museum; it further became apparent that if the Asiatic Society were squeezed into the Museum building, its position as an independent body would be liable to be seriously affected. The Society consequently expressed its unwillingness to enter a building where accommodation was insufficient and freedom of action was likely to be cramped. The position thus created was one of great embarrassment, but the difficulty was solved by a committee consisting of one of the most sagacious administrators and one of the acutest scientists in the country, Sir Ashley Eden and Dr. Thomas Oldham. Upon their joint recommendation, the Government of India paid to the Asiatic Society a sum of one and a half lacs of rupees as compensation for its claim to accommodation in the projected Museum building. Doubts were expressed at the time as to the propriety of the course thus adopted, but after the lapse of nearly half a century, no one will venture to dispute that the arrangement has been highly beneficial to both the institutions and has fostered their growth and development.

We have now arrived at the stage at which the Museum ceased to be the property of the Asiatic Society of Bengal and was transformed

THE INDIAN MUSEUM.

into an Imperial Institution, but it was not till 1875 that the Museum building, one of the largest in this city, became ready for occupation.

As may be anticipated, the transference of the zoological and archaeological sections to the new building, and the arrangement of the specimens was a work of much labour and anxiety. This was successfully accomplished by Dr. John Anderson, who formerly held the Professorship of Natural Science in the Free Church College at Edinburgh, and was appointed the first curator on the 29th September, 1866, immediately after the statute by which the Museum was established had been passed. A few years later Dr. Anderson's designation of Curator was changed to that of Superintendent, and he was also permitted by the Board of Trustees to hold the Professorship of Comparative Anatomy at the Calcutta Medical College in addition to his duties in the Museum.

In the work of organization of the Museum in the new building, Dr. Anderson was ably assisted by Mr. James Wood-Mason. Dr. Anderson had foreseen, as early as 1867, that the assistance of a competent naturalist was essential to enable him effectively to arrange and organize the zoological section, and on his representation, the Government sanctioned an

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additional post of Assistant Curator, subsequently designated Deputy Superintendent. Considerable difficulty was at first experienced in the selection of a qualified assistant, but two years later, in 1869, the Trustees were fortunate to secure the services of Mr. James Wood-Mason, who had been selected for the post by Professor Huxley and Sir Joseph Hooker. Mr. Wood-Mason proved himself a very capable and devoted worker and ultimately succeeded Dr. Anderson as Superintendent when the latter retired in 1886.

The exacting work of reorganization of the Museum upon which Dr. Anderson and Mr. Wood-Mason were engaged, occupied them for over two years, and thus, although the Museum building was ready for occupation in 1875, it was not till the 1st April, 1878 that the gallery containing the collection of birds and the archaeological gallery were thrown open to the public; a few months later, in December, 1878 the public were admitted to the mammal gallery.

I shall not detain you with a detailed statement of the changes effected in the constitution of the Board of Trustees from time to time by the Legislature. It is sufficient to mention that in 1876 a new statute was passed, by which the statute of 1866 was repealed and the number of Trustees was increased from 13

to 16. In 1887 the number was further raised to 21 and opportunity was given to the Trustees to co-opt additional members. Finally, so recently as 1910, a new statute was passed by which all the earlier enactments were repealed and the number of Trustees was fixed at 17. For the passing of this Act, we are indebted mainly to the energy and scientific statesmanship of Sir Thomas Holland, Chairman of the Trustees from 1906 to 1909.

Three fundamental alterations in the constitution of the Board of Trustees were introduced by the statute of 1910 and deserve special mention. In the first place, the officer in charge of each section of the Museum became a Trustee ex-officio, and was thus placed in a position to take part in the deliberations of the Trustees. In the second place, three members were allowed to be elected by Public Bodies, viz. one by the University of Calcutta, one by the Bengal Chamber of Commerce and one by the British Indian Association. In the third place, the number of representatives of the Asiatic Society, which by the statute of 1866 was fixed at four and was raised to five in the statutes of 1876 and 1887, was reduced to one. The effect of the changes thus recently introduced will, it is confidently expected, secure the more effective and harmonious administration of the Institution in the future.

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I shall now pass on to a brief review of the development of the Museum since 1875, when the collections of the Asiatic Society were transferred to our new buildings. As already explained, the Museum, at the time, consisted, in the main, of the zoological, geological and archaeological collections. In June, 1882 the Government of India enquired from the Trustees whether accommodation could be provided in the Museum building for certain economic products. The Trustees regretted their inability to accommodate such a collection, but expressed their readiness to favour an extension of the Museum building for the purpose suggested. Before effect could be given to this proposal, the Great Exhibition of 1883 was held in Calcutta. In 1884, after the Exhibition had been closed, it was suggested that the industrial collections, which had been brought to the Museum for the Exhibition, and under the designation of the Bengal Economic Museum, had been housed in temporary sheds on the site now occupied by the School of Art, might appropriately be amalgamated with the Indian Museum. The times were favourable for the acceptance of this scheme, which was rapidly advanced, and on the 1st April, 1887 the Economic and Art Section, which had formed a separate Institution under the direct control of the Government of Bengal, was placed under the Trustees,

with Mr. T. N. Mookerjee, a recognized authority on Indian Artware, as the first assistant curator in charge of the new department.

The establishment of this new section at once made it essential for the Government seriously to grapple the question of additional accommodation which had been first mooted in 1882. The result was that in 1888 the construction of the wing in Sudder Street was commenced, and in 1891, Mr. Thurston, who was then officiating for Dr. Watt, the Reporter on Economic Products, found himself in a position to remove to the new building all the collections of economic products, artware and ethnology. The art gallery itself was opened to the public in September, 1892 and the ethnological gallery in January, 1893, but the economic court was not opened to the public till several years later, viz. in 1901, when Sir George Watt, the head of this section, retired and was succeeded by Mr. I. H. Burkill, now Director of the Botanical Gardens at Singapore.

The Museum which, as we have seen, had originally started with the zoological and archaeological sections had thus had engrafted upon it, in course of time, the economic and art section, while the collections in the possession of the Geological Department occupied a somewhat anomalous and undefined position.

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the time had now evidently arrived, at which it was essential to secure the proper co-ordination of the institution as a whole and to ensure its harmonious growth in the future, that a comprehensive view of its scope and functions should be adopted. Consequently, in 1904 Sir Herbert Risley, then Chairman of the Trustees, proposed that the Museum might be divided into five sections, namely zoological and ethnological, geological, archaeological, art, and industrial. This distribution ultimately received the sanction of the Legislature in 1910.

I have now dwelt briefly upon the history of the extension of the Museum buildings rendered necessary by the establishment of the new economic and art section. I shall pass on for a moment to a somewhat different aspect of our activities. As early as 1889, the need for extended accommodation for work and study rooms in the zoological and archaeological sections made itself keenly felt. A proposal to construct rooms on the roof of the main building was pronounced impracticable. Consequently, in 1891 the Board of Trustees pressed upon the Government of Bengal to fulfill their pledge to build an additional wing to the Museum, as it had agreed to do six years earlier.

Three years later, the local Government consented to provide for the accommodation of

the offices, studies, laboratories, and store-rooms* of the Museum and of the Geological Survey of India; this was accepted by the Trustees in satisfaction of all their outstanding claims. The building operations were commenced and carried on with a rapidity unknown in the annals of the Indian Museum, and in the following year the magnificent new east wing was completed and was available for use as soon as the internal fittings could be provided.

The pressure upon the public galleries meanwhile continued steadily to increase, and in 1904 a fresh scheme for the extension of the Museum building on the Chowringhee Road, which had been under prolonged consideration, took definite shape. The scheme was warmly welcomed by the government of Lord Curzon, and a handsome grant was generously provided to meet the cost of this extension. In 1911 this new wing of the Museum was practically completed, and its two lower floors were fitted up as public galleries; the top floor of the recently erected range is utilized for the offices of the art and archaeological sections, while that of the old building is arranged for use as laboratories, as offices of the zoological section, and, finally as a lecture hall for the whole institution.

It is impossible within the time at my disposal to lay before the audience even a

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meagre account of the vast collections in the Indian Museum. But I must attempt a rapid survey of the various sources from which our collections have been derived. The zoological collections have been derived mainly from five different sources. In the first place, we have the original specimens collected by the Asiatic Society of Bengal, mainly under the guidance of their energetic and devoted curator Edward Blyth. These possess an exceptional value as the original documents on which the descriptions of a very large number of Indian animals were based.

In the second place, we have the collections made by the Surgeon-Naturalists on board the Royal Indian Marine Survey Ship 'Investigator,' the zoological work whereof was initiated at the instance of the Asiatic Society of Bengal in 1875.

The first Surgeon-Naturalist was Dr. Armstrong who held the post from 1875-79, when he was succeeded by Dr. Giles. The latter was followed in 1888 by that distinguished scientist, Colonel Alcock, who subsequently became Superintendent of the Indian Museum. The 'Investigator' collection is of unique importance, as we have here specimens of the Abyssal Fauna of the Indian Seas, the majority of which come from depths varying from 100 to 1900 fathoms.

In the third place, we have the invaluable collections made in connection with official frontier expeditions. These include specimens obtained on most of the important military and political expeditions that have taken place during the last forty years on the Northern and Eastern frontiers of the Indian Empire, from the Persian Boundary Commission of 1870 to the Abor Expedition of 1911. On most of these expeditions, a medical man was specially instructed to collect zoological specimens, and, with the exception of the Lhasa Expedition (euphemistically called the Tibet Frontier Commission of 1903), the majority of the specimens collected have been deposited in the Indian Museum. It is a hopeful sign that on the occasion of the Abor Expedition, a zoologist was officially deputed to collect specimens and information regarding the fauna and anthropology of the country traversed.

In the fourth place, private donors, too numerous to be individually mentioned, have ungrudgingly enriched our collections; but I cannot allow the present occasion to pass without special mention of the names of two distinguished officers of the Geological Survey, whose contributions are of abiding value, I mean Ferdinand Stoliczka and William Blanford.

In the fifth place, we are indebted to several of our officers for the contribution of

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valuable specimens to our collections. Two of our Superintendents, Dr. Anderson and Dr. Alcock, accompanied military or political expeditions beyond the frontier as doctors and naturalists, the former on two expeditions to Yunnan in 1868 and 1875, and the latter on the Pamir Boundary Commission in 1896; while our Assistant Superintendent, Mr. Kemp, joined the Abor Expedition of 1911 in the sole capacity of naturalist. These scientific workers made the fullest use of their exceptional opportunities, and the collections thus secured have proved to be of unique value; while the increased facilities for scientific tours latterly afforded to the members of our zoological staff has helped us greatly to make notable additions to our collection, more particularly of aquatic animals.

When we turn to our geological collections,¹ we find that they have been derived mainly from two sources. We have, in the first place, specimens collected by the members of the Asiatic Society of Bengal in the old days, and in the second place, the specimens collected by the officers of the Geological Survey since its foundation in 1851. The history and development of this department have proceeded generally on the same lines as those of the

¹ In the Geological Section of the Museum, the Trustees merely possess visiting powers, which they assumed in 1910.

zoological collections. But there is this fundamental difference between the two cases, that the geological collections represent the result of a continuous policy supported by a comparatively large scientific staff, and, as a consequence, the geological collections are ever more adequately representative of the Indian Empire and its frontiers than the zoological collections. I must not, however, venture upon even a superficial survey of the contents of the geological collections, as that would practically imply an attempt to write a history of the operations of the Geological Survey of India during the last sixty years.

We next come to our archaeological collections, which are of unquestioned value to every serious student of Indian antiquities. The most considerable, and possibly the most attractive, portion of the specimens still consists of the statues, sculptured stones, inscriptions and coins collected by the members of the Asiatic Society of Bengal or presented to that Institution by investigators in all parts of the country, before the establishment of the Indian Museum as a separate institution maintained from the public funds. Every student of Indian antiquities, who has in any degree made himself familiar with the contents of the "Asiatick Researches" and of the "Journal of the Asiatic Society," will recollect

that the names of many early contributors are closely connected with the specimens lent by the Society to the Indian Museum and now located in its buildings. Of this distinguished band of contributors, the name of General Alexander Cunningham stands out pre-eminent; and to him we owe the removal and preservation of the Bharut Stupa Rail, now one of the finest and most interesting existing relics of early Indian architecture. It is only necessary to add that since the archaeological section was placed under the Director General of Archaeology in 1910, many valuable coins, statues and other objects of interest have been deposited in Calcutta; amongst these, possibly the most notable addition to our collection consists of two stone figures, of a bull and a lion respectively, which date from the time of Asoka, and now stand erected at the entrance to the Museum.

Before I leave the archaeological collections, I cannot but make a passing reference to our extensive collection of coins, many of them lent by the Asiatic Society of Bengal, which were first catalogued by Mr. C. J. Rogers and have only recently been exhaustively described¹ by such competent numismatists as Mr. Vincent Smith and Mr. Nelson Wright.

¹ At least one other volume of the recent Catalogue is still to appear.

Our industrial collections also are of exceptional importance and form an extremely interesting group of objects. Some of these are specimens of industrial arts collected by the members of the Asiatic Society ; but, as I have already indicated, a substantial portion of these exhibits was transferred to the Museum only after the close of the Calcutta Exhibition of 1883-84.

Until quite recently, the ethnological collections also were included in the economic section ; they comprise weapons, implements, clothing, and other articles used by the various Indian tribes and races, and also life-size models of typical individuals of these tribes which were carefully prepared on the occasion of the Calcutta Exhibition. Some of the models of mechanical appliances can be traced as far back as 1828, while a collection of Javanese weapons is said to have been presented to the Asiatic Society at an even earlier period by Sir Stamford Raffles, who was British Governor of Java in 1815. Perhaps the most notable single addition to this collection is the fine set of Indian musical instruments presented by our distinguished fellow-citizen Raja Sir Sourindra Mohan Tagore.

Finally, we have the art collections, which have a history entirely different from that of the exhibits in the other sections. Some of

these were transferred from the Industrial Section as recently as 1910, but a very considerable proportion is the property of the Government of Bengal and owe their preservation to the energy and enthusiasm of successive Principals of the Calcutta School of Art; this observation applies with special appropriateness to the pictures, which were selected principally by Mr. E. B. Havell and Mr. Percy Brown.

There is only one other aspect of our activities to which I propose to invite your attention, namely, the distinguished part taken by this institution in the noble cause of the advancement of knowledge. It would be difficult to overestimate the importance of the biological and geological research strenuously carried out by our officers, though it is by no means easy to assign, except in the case of zoölogy, the precise share of credit for such work to the Indian Museum as distinct from the related scientific departments of Government. It may be maintained, without risk of contradiction, that all the research work not only in zoölogy and geology but also in meteorology and archaeology, now undertaken by different Government Departments, owes its origin in the activities of the Asiatic Society of Bengal, and for many years the Museum in the rooms of the Society was the chief centre

of such work in this country. The study and investigation of Applied Science, more particularly Botany and Chemistry, also had a similar origin.

The history of the development of the different sections of the Museum, since they came under our control, has, however, been so varied that it is only in zoology that it is possible to establish a claim for anything approaching a monopoly for the Indian Museum. The geological section, from the time of the foundation of the Geological Survey, has been incorporated therewith; the economic or industrial section has always been associated with the office of the Reporter on Economic Products to the Government of India, or, as he is now designated, the Economic Botanist to the Botanical Survey; the archaeological collections have been lent to the Director General of Archaeology in India.

The zoological section, on the other hand, has never been amalgamated at any time with an Imperial Survey Department, though we are now within measurable distance of the official recognition of the undoubted claims of zoology as a science pre-eminently useful and important, and of the foundation at no distant date of an Imperial Zoological Survey. The result of the position thus accidentally held in the past by the zoological section has been

that the research work accomplished by our officers in this department is embodied in the long series of monographs and in the periodical publications issued by the Trustees of the Indian Museum. The "Records of the Indian Museum," which constitutes a Journal of Indian Zoology, has now reached its ninth volume, while the "Memoirs," of which four volumes have been hitherto published, include many original papers of first-rate importance, embodying the result of much patient and laborious investigation. The highly technical nature of these publications has served effectually to conceal their contents from the public, who are apt to judge of the importance of a Museum solely from the specimens exhibited in the public galleries; but it is a source of legitimate pride and satisfaction to all interested in the future development of our work that the excellence of the original investigations carried out by our officers has spread the reputation of this institution far and wide into every centre where the knowledge of zoology is cultivated, and its claims as a science fittingly recognized.

I have now placed before you what, I am afraid, cannot but be described as a somewhat imperfect history of the foundation and growth of the Indian Museum; I have narrated to you, how a century ago a small band of scholars,

engaged in the study of the history, languages and antiquities of this country and determined upon the investigation of its natural products, laid the foundation for a Museum in this city, entirely with the limited private means at their disposal; how it took the ruling authorities thirty years to realize their undoubted responsibilities in this direction, notwithstanding persistent and oft-repeated reminders; and how once the duties of the Government in this matter were fully appreciated, arrangements were readily made for the establishment and gradual development of an Imperial Museum worthy of the Metropolis of the Indian Empire.

I naturally feel tempted at this stage to ask myself, whether the institution thus founded, developed, and nurtured has fulfilled its mission. I have no desire on the present occasion to enter upon an exhaustive discussion of the true functions of a Museum in relation to the community at large; but a brief consideration of the question may not be entirely useless. It is now generally recognized that a Museum is an institution for the preservation of those objects which best illustrate the phenomena of Nature and the works of Man, for the utilization of these in the increase of knowledge, and for the culture and enlightenment of the people. A National or Imperial Museum must, consequently, be equipped

adequately for the fulfilment of three principal functions, viz. first, for the accumulation and preservation of specimens such as form the material basis of knowledge in the Arts and Sciences; secondly, for the elucidation and investigation of the specimens so collected and for the diffusion of the knowledge acquired thereby; and, thirdly, to make suitable arrangements calculated to arouse the interest of the public and to promote their instruction.

As regards the first two of these functions, the Indian Museum has no reason to reproach itself. We have taken adequate steps for purposes of record; that is, to preserve, for future comparative and critical study, the material upon which investigations have been made in the past, or which may confirm, correct, or modify the results of such studies. We have also taken measures for the advancement of learning, inasmuch as we have aided learned men in the work of extending the boundaries of knowledge, by affording them the use of material for investigation, laboratories, libraries and appliances. Nor have we been slow to stimulate original work in connection with our own collections and to promote the publication of the results reached by our investigators.

But I regret to confess, with a feeling of disappointment, that when I examine the history of the Indian Museum from the point

of view of its third function as a possible powerful instrument for the instruction of the public, I cannot say that the fullest measure of success has been achieved. In so far as this third function is concerned, the Museum may be regarded, first, as an adjunct to the class room and the lecture room ; secondly, as a bureau of information ; and thirdly, as an institution for the culture of the people. A considerable measure of successful work has been accomplished in each of these directions, within the limited means at our disposal ; but these aims are matters of vital importance for the promotion of which further determined effort must be made.

If we desire to furnish to the advanced or professional student, materials and opportunity for laboratory training ; if we desire to aid the teacher of elementary, secondary, or technological knowledge in expounding to his pupils the principles of Art, Nature and History ; our scientific staff must be materially strengthened ; it would be disastrous to the success of the Indian Museum as an instrument for the Advancement of Learning if our officers were seduced from their legitimate work of extending the boundaries of knowledge.

Again, it is unquestionably our duty to do our best for the culture of the public, through the display of attractive exhibition-series,

well-planned, complete, and accurately labelled; and thus to stimulate and broaden the minds of those who are not engaged in scholarly research.

Here also, for lack of funds, we have not been able to arrange our public galleries as effectively as those of the great Museums of England, America and other civilized countries. But I am bound to observe that the extent of our effort in this direction has not always been correctly appreciated, and the numerous guide-books which have been prepared from time to time with considerable labour, have not very often received the recognition they deserve. I desire, consequently, to emphasize the urgent need for the improvement of our public galleries, and, generally, for the adoption of all necessary means to enable us to fulfil adequately our function as one of the most powerful agencies for the culture of the public and for the instruction of the advanced or professional student. For this purpose, we can confidently claim the assistance, not merely of the Government, but also of the generous and enlightened aristocracy throughout the country. It is not creditable to us that the Indian Museum should occupy the singular position of a great institution of which the paramount claims upon the community at large should scarcely if ever have been duly recognized. We have never lacked a constant

succession of distinguished workers, and it is a matter of legitimate pride and satisfaction to all of us that the interests of the Museum are entrusted to a band of devoted and enthusiastic investigators, amongst whom we are at present able to count scholars of the stamp of Mr. Hayden, Mr. Hooper, Dr. Spooner, Mr. Percy Brown, Major Gage, and last but not least, Dr. Annandale, who has been most unfalteringly jealous to maintain the high tradition of the institution.

The accomplishment of our work is safe in their hands; what they require is adequate funds for the full development of the institution, as also genuine recognition of their labours, not only by the State but also by the educated and cultured public.

FIRST INDIAN SCIENCE CONGRESS.

15th January 1914.

GENTLEMEN,

I do not use the language of mere conventional courtesy when I say that although I am deeply grateful to you for your invitation to take the Chair at this the inaugural meeting of the Indian Science Congress, I cannot but feel that on this occasion the Chair might have been more fittingly occupied by one of the many distinguished investigators who are present in this assembly and who have devoted the best of their lives exclusively to the advancement of science. Let me assure you, however, that although I am deficient in many respects, I yield to none in an anxious desire to promote those objects for the attainment of which this Congress has been convened.

We meet in this historic building on the anniversary of a date ever memorable in the annals of research, scientific and philological, in the British Empire in the East, for it was just one hundred and thirty years ago, on the 15th of January, 1784, that the Asiatic Society was founded by Sir William Jones, one of the most gifted of the many noble sons of Britain who have devoted their lives to the cause of the advancement of knowledge amongst the people

of this land. The Asiatic Society thus founded has been throughout its long career the principal source of inspiration in the organization and advancement of scientific research of every description in the country, and it is eminently befitting that the first meeting of the Indian Science Congress should be held in the rooms of the Society and directly under its auspices. It is further fortunate that we should be able to hold the Congress simultaneously with the celebration of the centenary of the foundation of the Indian Museum, which had its origin in the activities of the members of the Asiatic Society, and which by the invaluable work of its scientific officers in various departments has justly attained world-wide reputation. The times are manifestly favourable to the establishment of an Indian Science Congress, and I trust I may rely upon your indulgence, while I briefly narrate how the idea to hold such a Congress originated, took shape and was developed.

It is now more than two years ago that Professor Mac-Mahon of the Canning College at Lucknow, and Professor Simonson of the Presidency College at Madras, brought forward a proposal for the foundation of an Indian Association for the Advancement of Science. The object and scope of the proposed Institution were stated to be similar to those of the British Association for the Advancement

of Science, namely, to give a stronger impulse and a more systematic direction to scientific enquiry, to promote the intercourse of Societies and individuals interested in Science in different parts of the country, to obtain a more general attention to the objects of Pure and Applied Science, and the removal of any disadvantages of a public kind which may impede its progress. This proposal was widely circulated amongst persons of culture interested in the spread and development of Science in this country, and the fundamental idea, as might easily have been anticipated, met with favourable reception. The scholars approached were not slow to recognize the desirability of co-ordination of scientific work and co-operation amongst scientific workers. It is not necessary on the present occasion to attempt an exhaustive enumeration of the different branches of scientific activity in which teachers and investigators are engaged throughout this great continent. To enable us to appreciate the vast extent and varied nature of the scientific work to which they are devoted, one need recall to mind only the numerous colleges affiliated to the various Indian Universities, where the study of Mathematics, Pure and Applied, Astronomy, Physics, Chemistry and Biology is enthusiastically pursued; the excellent Institutions where branches of professional knowledge like

Medicine and Engineering, whose foundations lie on a deep-rooted scientific basis, are studied ; the Institutes which are maintained in a high state of efficiency by private munificence, or by State grants, solely for the cultivation and advancement of Pure and Applied Science ; the Observatories where Astronomical and Meteorological investigations are regularly carried on ; the various departments of the State entrusted with the special care of important branches of knowledge like Geology, Botany, Agriculture, Forestry, Sanitation, Bacteriology, Meteorology, Trigonometrical Survey, Marine Survey, and Archaeology ; finally, our splendid Museums which have been in the past the chief centres of Zoological and Anthropological study and research. In a domain so vast in extent and diverse in character, it is obviously essential, if the fullest measure of efficiency and success is to be achieved, that the men of Science, engaged in study and instruction, whether individually or in small groups, should be brought into close association with each other ; they really constitute an army of workers whose services to the State are materially impaired in strength if they are allowed always to remain scattered and isolated. The advantages of personal intercourse between scientific workers, engaged in the same field of activity or in the pursuit of allied lines of research, are too obvious to

require much elaboration. The most beneficent results may be achieved by an instructive interchange of ideas between scientific men ; they may, however, not only mutually communicate their ideas, they may also state the advance made in their own respective spheres of action, and indicate to each other the special departments which may be most profitably cultivated or the outstanding problems which may be attacked with the greatest utility. But personal association amongst scientific men may be pregnant with important consequences, not merely by a fruitful exchange of ideas ; cultivators of Science, by periodical meetings and discussions, may bring their aims and views prominently into public notice, and may also, whenever necessary, press them upon the attention of the Government,—a contingency by no means remote, for, as experience has shown, even the most enlightened Governments occasionally require to be reminded of the full extent of the paramount claims of Science upon the Public Funds. The votaries of Science may, in this manner, give to their researches a profitable direction, enable teachers and investigators to obtain an intimate acquaintance with the practical needs of the country, foster the growth of active co-operation between Europeans and Indians in the spread of scientific education, and, what is of

the greatest importance in our present condition, on the one hand, bring home to the commercial community the inestimable value of science as an essential factor of industrial regeneration, and, on the other hand, make the landed aristocracy realize that science enables us to solve difficult agricultural problems and thereby to revolutionize agricultural methods. In view of the various standpoints I have just briefly indicated, it was only natural that the idea, which lay at the basis of the proposal to establish an Indian Association for the Advancement of Science, should meet with ready recognition. But it was felt by many men of experience that the pressure of heavy official duties under which many investigators here carry on their scientific work, the climatic conditions which prevail in this country, and the long distances which have to be traversed, constitute practical difficulties of no mean order in the way of the immediate formation of a peripatetic association, designed to meet periodically in turn in all the different centres of scientific activity. As the result of full discussion of the situation, the view ultimately prevailed that the desired object could be attained if a Science Congress was held in the first instance in Calcutta, under the leadership of the Asiatic Society, and simultaneously with the Indian Museum Centenary Celebrations, which,

under the special facilities generously afforded by the Government of India to scientific officers, was likely to be attended by a large number of distinguished scientific men. It is, I think, distinctly fortunate for the success of the movement that we have been able to secure as our Patron, His Excellency Lord Carmichael, whose devotion to the cause of scientific research is equalled only by his fame as a just and sympathetic statesman. I trust it may fairly be maintained that we have started our work under as favourable an auspices as the promoters and supporters of the movement could reasonably expect under the present conditions. Their call to scientific workers has met with generous response, as is amply indicated by the presence here of many notable investigators from all parts of the Indian Empire. We have also been favoured with a number of important papers on Chemistry, Physics, Zoology, Geology, Botany, and, last but not least, the fascinating subject of Ethnography which is too often regarded, very erroneously, as a popular and non-scientific branch of study. I now beg to accord a most cordial welcome to each and every one of our members and guests and declare this Congress open.

MOHSIN CENTENARY.

8th March 1913.

Mr. President, Ladies and Gentlemen,

I do not use the language of mere convention when I say that I deem it a high privilege to be permitted to associate myself with this the first centenary commemoration of the death of Haji Mahomed Mohsin. Ever since the days of my youth, whilst still a student at College, I have held in high veneration the name of Haji Mahomed Mohsin as that of one of the most illustrious Indians of the 18th century. Consequently, when my respected friend the Secretary invited me to speak in appreciation of the life and character of Haji Mahomed Mohsin, I readily consented to deliver a brief address on this occasion. But I find my learned friend has, no doubt with a view to secure brevity in his letter of invitation, omitted to state that my proposed address will be very brief; and, I trust I may rely upon your indulgence while I recall to your minds the career and achievements of Haji Mahomed Mohsin.

In the beginning of the 18th century, attracted by the opportunities which India at the time presented to all adventurous captains of industry, Aga Fayzullah, a member of a

family of merchants of considerable repute in Ispahan in Persia, migrated to this country and settled at Murshidabad, then the capital of Bengal. Shortly after, he left his son Fayzullah in charge of his business at Murshidabad, and transferred his activities to Hughli, at the time one of the greatest commercial cities of this province. Here his business flourished, and he was soon after joined by his son Fayzullah. At that time, there resided in Hughli another Persian of great respectability, Aga Motahar, one of the favourite courtiers of the illustrious Emperor Aurangzeb. Aga Motahar had been the fortunate recipient of valuable landed properties which had been bestowed upon him as a mark of Imperial favour, and he found it necessary to settle down at Hughli with a view to the effective and prosperous management of his extensive estates. The name of Aga Motahar still lives in the affectionate remembrance of every pious Mahomedan as that of one of the most devoted followers of the Faith, who applied his wealth in the reconstruction of the great Imambarah originally built by Murshid Kuli Khan, Viceroy of Bengal. The families of Fayzullah and Motahar were closely drawn together, as may be anticipated, by the bonds of friendship. Aga Motahar died in 1728, and left a widow and an only daughter Manu Jan Khanum to whom he left all his vast

estates. Shortly afterwards, the widow of Aga Motahar married Fayzullah, the son of the friend and compatriot of his deceased husband. The only child of this marriage was Mahomed Mohsin whose memory we have met this evening to celebrate. The early life of Mahomed Mohsin was one of great happiness and prosperity. He was brought up with all the affectionate care which his parents could bestow upon him, and under the guidance of a distinguished Persian scholar, Aga Shirazi, young Mahomed Mohsin as well as his half sister, Manu Jan Khanum, rapidly acquired considerable proficiency in Arabic and Persian studies. Thus thoroughly grounded in the time-honoured culture of Islam, Mahomed Mohsin went to Murshidabad where he finished his studies in one of the most famous Muktabs of the time. On his return to Hughli, he resided at the house of Manu Jan Khanum, and the brother and sister were attached to each other by the strongest ties of devotion and affection. The biographers of Mahomed Mohsin tell us of a romantic incident which happened at this stage of his career. A conspiracy had been formed to poison Manu Jan Khanum by her enemies, who were anxious to seize her wealth and be thus benefitted by her death. The nefarious plot was ingeniously discovered by Mahomed Mohsin, and its

execution was baffled by his boldness. The result was that he roused the anger and hatred of the conspirators, who, defeated in their original design, turned their attention to him. About this time, his half sister married, and, as soon as he found that his sister to whom he was devotedly attached, had an able protector, he decided to set out on an extensive course of travel which had been the dream of his youth. Whilst still a student, his imagination had been fired by the stories of foreign lands narrated to him by his preceptor Aga Shirazi, and he took the first opportunity to widen his intellectual horizon by a visit to foreign lands and a study of foreign people, their habits and character. In 1762, he set out on his travel which lasted for 27 years. He visited all the famous towns of Northern India, and went far beyond the limits of the Indian Empire. He made his way through Afghanistan, Persia, Turkey, Egypt and Arabia, and made pilgrimages not only to the holy cities of Mecca and Medina but also to the sacred Moslem shrines in every city he visited. One can imagine how this long extended travel, lasting over a quarter of a century, tended to deepen his religious fervour and to strengthen the intellectual side of his character. In 1790, when he had reached his sixtieth year, he decided finally to terminate his travel and

turned to his native land. He passed through Delhi and Lucknow, where the fame of his wisdom and erudition had preceded him, and came back to Murshidabad where he was determined to settle and end his days in peace. On his return home, however, he found that his half sister, after a short spell of happy married life, had become a widow, and was anxious to receive his assistance in the management of her vast properties. Mahomed Mohsin was thus ultimately induced by Manu Jan Khanum, for whom he still retained the feelings of deepest attachment, notwithstanding years of separation, to leave his intended life of study and seclusion and to undertake the engrossing occupation of the management of her properties. Not many years after, Manu Jan Khanum died in 1803, and, as the most striking proof of her affection for her half brother, made a bequest of the whole of her estate to Mahomed Mohsin. Mahomed Mohsin now felt himself in a position of considerable embarrassment,—a position of embarrassment in which many other people would be delighted to find themselves. He was now well-advanced in years. He had no children; in fact he had never married; and he had no near relations. The proper disposition of his own ancestral wealth had been for some time past a source of considerable anxiety to him, for notwithstanding his charitable disposition and his willingness to assist

men of all creeds and castes, he had not been able to exhaust the fortune amassed by his father and grand-father. While he was in this position, the death of his half sister and her testamentary devise placed at his disposal the entire fortune of the family of Aga Motahar. From a personal point of view, the acquisition of this vast wealth was of no consequence to him, for he had, throughout his long life, lived like the simple scholar and frugal traveller, for whom the petty vanities of dress and taste had no fascination whatever. Under these circumstances, with characteristic foresight and magnanimity, he executed on the 26th April, 1806, that famous deed of trust by which the whole income of his properties was to be devoted in perpetuity to religious and charitable purposes. The terms of this trust-deed will for ever be remembered with gratitude by successive generations, and have been appropriately engraved on the walls of the Imambarah. Six years later, in 1812, Haji Mahomed Mohsin died at the ripe old age of 82 and was buried in the Imambarah garden, close by his dearly loved half sister, Manu Jan Khanum, from whom he had received his earliest inspiration in the years of his training and his great inheritance in the closing years of his life. Such is the simple story of the life of this truly great man ; but I cannot, with propriety, close this address without a brief

reference to the subsequent history of the administration of this memorable trust. The first trustees, nominated by the illustrious Founder, to their ever-lasting disgrace, proved faithless to their sacred trust, and but for the timely intervention of our beneficent Government, the object of the pious Founder might have been completely frustrated. The salutary provisions of a Regulation which had been passed in 1810 were forthwith put into operation, and since 1817 the control of the Mahomed Mohsin Trust Estate has been in the hands of the Government. The ever-increasing income has been applied, in fulfilment of the original intentions of the Founder, for religious and charitable purposes. For a period of 37 years, the Hughli College which is rightly regarded as one of the foremost educational Institutions of this province, was maintained out of the income of the Mohsin Fund; for more than 40 years, the Madrassas at Hughli, Rajshahi, Dacca and Chittagong have been maintained in a high state of efficiency by a judicious application of the income of the Trust Fund; while, for many years past, Mahomedan students whose aggregate number must by this time exceed thousands, have received a subvention from the Mohsin Fund in part payment of the fees payable by them at an English School or College. I trust, I have said enough to

justify the assertion that Mahomed Mohsin was a man truly remarkable for piety and culture, a man who may without exaggeration be described as one of the greatest Indians of the 18th century, a man whose memory is justly held in reverence by Hindus and Mussalmans alike, a man who would do honour to any race or nation, be it the most progressive and the most civilised. True it is, he has left no descendants; but by his princely endowment he has obtained for himself a new and never-ending family, for his name is daily in the mouths of hundreds, it may be, thousands of the educated youths of this province, who have been assisted by his benefaction in their strenuous pursuit of knowledge under difficulties. Let us hold, from generation to generation, in affectionate and undying remembrance, the name of Mahomed Mohsin as one of the most memorable of the benefactors of our country, and, let us at the same time express our gratitude to our enlightened rulers, but for whose timely intervention and judicious administration of the Fund, this precious gift might have been dissipated and the benevolent object of the noble and pious Founder completely defeated.

SANSKRIT CONVOCATION.

28th January 1913.

Your Excellency, Ladies and Gentlemen,

It is with feelings of considerable embarrassment that I rise to address this learned and cultured audience. My difficulty arises principally from the circumstance that if I deliver my address in my mother-tongue, I shall not be intelligible to Your Excellency and to my European friends; on the other hand, an address in English will be wholly unmeaning to the great Sanskrit scholars who are the chief ornaments of this assembly. They have, however extricated me from this difficult situation and have asked me to speak in English, subject to the condition that Dr. Satishchandra Vidyabhushana will hereafter communicate to them the substance of the few observations I am about to make.

Our first duty on this auspicious occasion is to accord to Your Excellency a most cordial welcome, and to express our gratitude for this practical proof of the interest you take in the cause of promotion of our ancient learning. I call this an auspicious occasion, because this is the first of what will be a long series of successive Convocations of learned Pandits, the

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depositories of the Literature, Philosophy and Science cultivated by our great scholars of past ages. It is impossible for me to utilise this occasion for even a rapid survey of the progress of Sanskrit learning in this province during the last century. It is sufficient for my present purpose to recall to mind that immediately after the establishment of the British Government in this country, men of the highest eminence and attainments such as Sir William Jones, Henry Thomas Colebrooke and Horace Hayman Wilson, devoted themselves with surprising zeal to the study and investigation of Sanskrit learning in its various departments. The researches of scholars like these revealed a new and fascinating field for enquiry, the importance of which our Rulers were by no means slow to recognise. The result was the foundation of the Sanskrit College at Benares, which was at that time within the Presidency of Bengal and was as now the great centre of light and leading in Sanskrit studies, followed by the establishment of the great College where we are now assembled under the presidency of Your Excellency. Ever since then, for more than eighty years, the Sanskrit College of Calcutta, under the guidance of its successive Principals, many of whom have been men remarkable for breadth of culture and depth of scholarship,

men like Iswarchandra Vidyasagāḥ, Edward Byles Cowell and Maheschandra Nyayaratna, has served as the great central academy for Sanskrit learning in Bengal, Behar and Orissa. But although the Pandits throughout the Province looked up to guidance from the Sanskrit College and acknowledged its leadership, the element of unity and cohesion amongst the entire body was absent in a remarkable degree. In each District, in each centre of Sanskrit learning, the Pandits worked independently, without reference to fellow-workers in other seats of learning, and as might have been anticipated, under these circumstances, not only a generous rivalry but sometimes unworthy jealousy prevailed in many places. It was not till 1878 that upon the suggestion of Pandit Maheshchandra Nyayaratna, the Bengal Government took the first vital step in the process of co-ordination of these diverse and not infrequently repellent elements. The introduction of the system of Title Examinations in Sanskrit by the Government of Bengal gave a great impetus to the advancement of Sanskrit learning and marks a notable epoch in the progress of Sanskritic studies amongst our Pandits of the present generation. The new system, it will readily be understood, had to be worked slowly and cautiously, and even the titles which were conferred on the results

of the various examinations had to be substantially modified and an entirely new denomination adopted in less than six years. But it must have been patent from the very outset, to all persons interested in the true progress of Sanskrit learning amongst our Pandits, that the institution of the examinations and the recognition of proved merit by the award of titles, were wholly insufficient for the full achievement of the end in view. It was essential to secure the proper training of the students, and in order that they might be regularly trained, it was equally if not more essential that the students as well as their teachers should be adequately rewarded and properly maintained. The progress, however, in these directions, as I have already indicated, was slow, and it was not till a dozen years had elapsed since the establishment of the examination system, that the first systematic survey was attempted, of the Tols or Sanskrit Schools and Academies throughout Bengal, Behar and Orissa. It was most fortunate that this preliminary survey was undertaken and accomplished by so far-sighted a scholar as Pandit Mahes-chandra Nyayaratna. It became manifest from his valuable report that there was a striking diversity in the character and extent of the courses of study pursued in these Institutions, and, that while it was necessary to avoid a

dead level of uniformity, it was incumbent on those interested in the further progress of these studies to secure an average standard of efficiency. The result was that the Principal of the Sanskrit College was constituted the Registrar of the Sanskrit Examinations, with authority to prescribe the courses of study in consultation with the local associations in various parts of the country, and to organise a uniform series of examinations by printed papers prepared in Calcutta and forwarded to various centres all over the country. This system, as might have been anticipated, involved the danger of evils inseparable from all highly centralised forms of government. In less than ten years, it was found that the system had given rise to widespread, and, as it must now be admitted, legitimate discontent. The Pandits throughout the Province clamoured that the courses prescribed for study were in many instances unsuitable, and that in the appointment of examiners, the claims of many competent men, laboriously engaged in the work of instruction and honourably successful in their calling, were unreasonably overlooked. The obvious solution of a somewhat difficult situation was suggested by the Maharaja of Darbhanga, who took the initiative in this matter, not only as the premier nobleman of Bengal, Behar and Orissa but also as a cultured

and devoted student of Sanskrit Literature and Philosophy. On the 19th June, 1908, the Government of Bengal appointed an advisory and examining body called the Board of Sanskrit Examinations. The vital characteristic of the Board is that it contains representatives, not only of Sanskritists steeped in western methods of study and research but also of Pandits of great learning and erudition who have carried on the traditions of ancient Sanskrit learning with credit to themselves and honour to their country. On the one hand, the Board have had the inestimable advantage of the advice and guidance of scholars like Dr. George Thibaut, Rai Rajendrachandra Sastri Bahadur and Dr. Satischandra Vidyabhusana. On the other hand, they have had the advantage of the wealth of learning of men like Mahamahopadhyaya Chandrakanta Tarkalankar, Acharyya Satyavrata Samasrami and Mahamahopadhyaya Jadunath Sarva-bhauma, each inimitable in his own special department of knowledge. If I may be permitted to say so without impropriety, the work of this composite Board has met with striking but by no means unexpected success. Since the establishment of the Board, the popularity of the Sanskrit Examinations has grown in a remarkable degree. During the four years which preceded the creation of the

Board, the total number of candidates varied from four to five thousand a year. During the four years which have elapsed since the foundation of the Board, the number has grown with astonishing exuberance, and during the present year has reached the high figure of 10,000. This by itself is unquestionably a matter for congratulation ; but there is an additional circumstance which cannot fail to afford special satisfaction to all promoters of Sanskrit learning amongst our Pandits. There is now much greater cordiality between the Pandits and the persons charged with the conduct of examinations than has ever prevailed at any time in the history of the system. Indeed, this great gathering of Pandits bears ample testimony to the genuine enthusiasm they feel in the work, the natural result of a widespread confidence that their suggestions are not liable to be ignored, and that schemes for the welfare of the pupils and the teachers will meet with a sympathetic consideration from the Government. Amongst unerring signs of a steady and rapid growth of interest in the departments of study with which the Board has to deal, I may mention the gratifying circumstance that repeated applications, with which we have not been able to comply by reason of the territorial limits of our jurisdiction, have been received from associations of Pandits outside these

Provinces, and situated in the remotest parts of India, inviting us to extend the sphere of our activities and to open fresh centres of examination amongst them. We have further been repeatedly pressed by the leaders of the Jain community to hold examinations in Jain Grammar, Literature and Philosophy, and, quite recently, the Buddhists in Chittagong have pressed upon us with remarkable insistence that we should institute examinations in the departments of Pali and Prakritik studies. These are plainly matters for congratulation, and, one may without appreciable risk indulge in the prophecy that a solid foundation has already been laid for the ultimate formation of a great Oriental University. Call it by what name you please, we have here the nucleus of a truly Oriental University, which in point of numbers and enthusiasm of its students, and the qualification and the earnest and unselfish devotion of its teachers, has no parallel in modern times in this country, and need not be apprehensive of a rival. It is peculiarly fortunate that at this juncture, the Government contemplates the appointment of a Committee to investigate the situation and review the problems pressing upon us for solution. It would be premature to anticipate the result of such an enquiry, but if Government finds it possible, as I earnestly hope it will, to provide

liberal grants to pupils engaged in Sanskrit studies, as well as to their teachers, a decisive step will have been taken for the conservation of that ancient learning which is the highest glory of the people of this land and the encouragement of which has ever been the object of our enlightened Rulers. At the same time, I feel that if the future generation of our Pandits are to maintain their position as scholars and leaders of society, they must arm themselves with the knowledge of the West and learn to appreciate the labours of Western scholars. It is one of the gratifying signs of the time that our indigenous scholars, notwithstanding their orthodoxy, have now begun to realise the value and importance of the Light from the West, and will, I feel assured, not be slow to take the fullest advantage of such facilities as may be afforded to them to make themselves acquainted with the ripest fruits of western scholarship. I feel no doubt, My lord, that under the auspices of Your Excellency, we are about to inaugurate a system upon which the People as well as their Rulers will, in years yet unborn, look back with legitimate pride and genuine satisfaction, a system which will open out the boundless field of Indian studies and stimulate thousands of students and teachers to labour in the paths of their ancient learning consecrated by their ancient religion.

SANSKRIT CONVOCATION.

21st February 1914.

Your Excellency, Ladies and Gentlemen,

Twelve months have rapidly passed away, since we last met under the presidency of Your Excellency, in the historic quadrangle of the Sanskrit College, to accord a cordial welcome to the leading representatives of indigenous Sanskrit learning from different parts of these provinces and to bestow marks of honour upon the successful students in recognition of their attainments in different branches of Indian Literature, Philosophy and Science. It is, I venture to think, distinctly a matter for congratulation that we are able again to assemble here for a similar purpose under the presidency of Your Excellency and to express our sincere gratitude to you for this fresh proof of the interest you have continued to take in the accomplishment of our difficult task. During these twelve months, nothing but success and prosperity has attended the humble efforts of those who are engaged in the conservation and dissemination of our ancient learning. The number of students under instruction in our seminaries has steadily increased, while there has been a corresponding

increase in the number of candidates at all our examinations. We have been invited to open out new centres of examination in the remotest parts of this province as well as of neighbouring provinces, and, at the request of the Director of Public Instruction of the province of Assam, two new centres have been established at Gouripur and at Silchar Cachar. We have also been pressed by communities resident beyond the territorial limits of our jurisdiction to open new centres of examination in provinces far removed from us.

But although these repeated invitations afford practical proof of the popularity of our system of examinations, and of the confidence reposed in our work by Sanskrit scholars in the most distant parts of India, we are unable to accede to their request, as any action on our part on the lines proposed, even if we were free to take such a step, might not unreasonably be interpreted to mean that we desire to enter into competition with other public or private bodies, similarly constituted as ours, for the conduct of Sanskrit examinations and for the promotion of Sanskrit learning. But one obvious significance of the circumstance that we have steadily received these invitations to extend the scope of our activities, should not be ignored or misunderstood. It indicates in unmistakable terms, I venture to think, the

essential homogeneity and solidarity of Sanskrit learning, notwithstanding an apparent diversity of text-books and commentaries, in the most distant centres of indigenous culture. The fact I have mentioned, will, I trust, arrest the attention of those well-meaning people—and there are many of them—who are too ready to favour the view that the redistribution of territory or reconstitution of provinces on political or administrative grounds must necessarily be accompanied by the creation of distinct organisations for the promotion of Sanskrit learning. The representatives of Sanskrit culture of all ranks and classes have, so far as we can judge, hitherto remained unaffected by these territorial changes, and, if I am not very much mistaken, there has been up to the present moment no sure indication that they really desire the creation of distinct and independent groups amongst themselves. I venture to urge this aspect of the situation most strongly for the sympathetic consideration of our rulers who are, as we all know, genuinely and sincerely interested in the preservation and development of our ancient learning and culture.

During the last twelve months, our work has received substantial help from munificent donors who have created endowments for the encouragement of our advanced

students. Thakur Pratap Narayan Deb Vairma of Lakshmipur, who was an enthusiastik devotee of Sanskrit learning and who, to the deep regret of all true friends of Sanskritik studies, has been prematurely lost to our cause, placed at our disposal a sum of Rs. 9,500 to enable us to establish, with the annual income, a gold armlet and a gold medal for the encouragement of students of that wonderful system of grammar, which will for ever remain indissolubly associated with the illustrious name of Panini. Raja Pyarimohan Mookerjee, whose genuine and life-long devotion to the cause of higher learning and culture, both ancient and modern, stands in no need of praise from my lips, has given Rs. 2,000 for the establishment of two prizes for the encouragement of students of Sanskrit literature and Sanskrit law. These notable donations for the promotion of the study of Sanskrit, which has to be pursued by its votaries for the sake of learning alone, remind us of our benefactors in the past, amongst whom we are able to count the honoured names of the Maharaja of Darbhanga, the Maharaja of Burdwan, Maharanee Swarnamayee of Cossimbazar, Maharaja Sir Jatindramohan Tagore, Raja Sir Saurindramohan Tagore and Babu Mohini-mohan Ray. Benefactions of this character afford unmistakable proof that, even in this

utilitarian age, our ancient learning and culture, which are irrevocably assimilated with our whole social fabric, continue to exercise a powerful influence upon our wealthy and enlightened countrymen, and I venture to express the hope that the aristocracy of these provinces will not be slow to assist us liberally for the purpose of the promotion of Sanskritik studies.

There are one or two specially notable features in connection with the activities of the Board during the last year, to which reference must be made on the present occasion. The circumstance that the number of female candidates at the first, second and title examinations continues steadily to increase may, I think, be considered truly remarkable, and we have found it necessary to open a separate centre for them at the Bethune College. We have further framed special courses in grammar and in philosophy at the request of the Digambar Jains and have thus widened the sphere of our influence and paved the way to resuscitate the study of extremely important departments of Sanskritik learning. We have finally extended the scope of the course of study for all candidates by the inclusion of Bengali, Hindi and Uriya as optional subjects in the curriculum for all our examinations. We trust this step will secure a closer and more intimate

association than has hitherto been generally the case between the great Indian classical language and the vernaculars derived therefrom. The hope may not be altogether futile that our action will help to foster a systematic study of the Indian vernaculars by a wide circle of students of Sanskrit and will thereby still further advance the cause of the progress of the Indian vernaculars, which have, in quite recent years, received a remarkably vitalising stimulus from the recognition accorded to their claims by the University of Calcutta.

I cannot conclude my address without a brief reference to an important step taken by the Government of Your Excellency in the course of the last twelve months for the better organisation and co-ordination of Sanskrit studies in these provinces. A special committee was appointed, composed of the foremost representatives of indigenous oriental culture, as also of Western scholars interested in the development of Sanskrit learning amongst our people. A detailed report has been drawn up by the Committee and is understood to be now under the consideration of the Government of Bengal. This careful survey of the present situation proves conclusively that here, as in many other departments of human activity, liberal financial assistance is needed. Ample grants are required for the award of stipends

to deserving scholars and rewards to teachers of established reputation. Funds are also imperatively needed for libraries in easily accessible centres of Sanskrit learning, while chairs must be created and liberally maintained, if men of acknowledged ability are expected to cultivate with lifelong devotion abstruse departments of literature, philosophy and science, notwithstanding the pressure of limited means and the manifold disadvantages of advancing years. I feel confident that the paramount claims of these distinguished scholars and their strenuous students to assistance from the public funds will meet with sympathetic consideration at the hands of the Government. They consecrate their lives to the conservation of our ancient learning indissolubly associated with our ancient religion, which, notwithstanding the shock of the strange vicissitudes to which Hindu society has been subjected in centuries past, continues and will ever continue to be the bedrock of our entire social structure. But, apart from the fundamental importance of their work and the position they occupy in our social economy—the true significance whereof may not be readily realisable to superficial observers in a materialistic age—we cannot overlook the fact that they are the inheritors of the noble traditions which they will hand down to posterity, that

learning is the noblest of wealth and that it is worthy of free distribution as thereby it suffers increase instead of decrease. Imbued with this doctrine, this noble band of scholars, My Lord, lead a life of poverty and privation, worthy of their illustrious predecessors, who boldly proclaimed

विदित्वा नृपत्वं मेवतुल्यं कदाचन ।

खद्वेरी पूज्यते राजा विद्वान् सर्वत्र पूज्यते ॥

SANSKRIT CONVOCATION.

12th March 1915.

Your Excellency,

During the twelve months which have elapsed since we had the privilege to hold our last annual gathering in the inspiring presence of Your Excellency, there has been steady progress in Sanskrit and Sanskritik studies under the guidance of the Board of Sanskrit Examinations, and I trust I may count upon your gracious indulgence if I take a rapid survey of our activities and briefly review the work which has been accomplished. But, before I do so, it is incumbent on me to pay a tribute of respect to two of our venerable colleagues, now departed, who assiduously helped us with their advice and aided us with their co-operation ever since the foundation of the Board. Dr. George Thibaut was a veritable tower of strength to our cause. His mind was so deeply saturated with Indian Literature and Indian Philosophy, so freely had he drawn his inspiration from the illustrious Pandits who surrounded him at Benares and Allahabad, that he could appreciate and assimilate genuine Indian tradition in the field of Sanskrit learning as few other non-Indian scholars had done

before him. That he had gathered the golden fruit of wisdom from the priceless products of the Indian intellect, is evidenced by his intuitive insight into the mysteries of Indian Philosophy and his profound acquaintance with the details of Indian Astronomy, and his original contributions towards the elucidation of many an obscure problem in these departments have an abiding value and interest. In Mahamahopadhyay Prasanna Chandra Vidyaratna of Dacca, we have lost a scholar of indomitable energy who devoted the best years of his life to the organisation and promotion of Sanskrit studies in the Eastern districts of Bengal, and if I may say so without impropriety, I have lost in him a trusted friend in whose tact and judgment I never hesitated to place implicit reliance. We have also to lament the loss, during the past year, of two of the foremost Sanskrit scholars of Bengal in whose achievements we were accustomed to take a legitimate pride, Mahamahopadhyay Rakhaldas Nyayaratna of Bhatpara and Pandit Harischandra Tarkaratna of Navadwip. The former had, by a wonderful combination of intellectual acuteness with breadth of view, and by a lifelong devotion to the solution of the most recondite problems in varied fields of study, rightly attained a pre-eminent rank and position, which was ungrudgingly acknowledged

in all centres of Sanskrit learning throughout India,—an honour by no means common in these cosmopolitan days ; the latter maintained almost up to the time of his death unquestioned superiority as an impressive instructor in difficult branches of learning which he had made all his own. I venture to express the hope that our students of the younger generation will for ever hold in affectionate remembrance the memory of these truly great men,—great in their scholarship, great in their selflessness, great in their poverty—and will throughout their lives, emulate their learning and their integrity, for, in them was verified the description by the moralist,

निन्दन्तु नीतिनिष्ठानां यदि वा सुवन्तु

वदन्तीः समाविष्टा गच्छन्तु वा यथैच्छन् ।

अथैव वा मरणात्मसु युगान्तरे वा

न्याय्यात्पथः प्रविचलन्ति पदं न धीराः ॥

The most notable event in the history of our activities during the last twelve months is unquestionably the introduction of Prakrit and Pali in the curriculum of studies recognised by the Board. If we contrast the courses as they now stand with what they were five years ago, we find a gratifying expansion of the field of knowledge where we encourage proficiency by examinations and offer of rewards. Even in departments previously included in our curriculum, such as Grammar, Philosophy and

Jurisprudence, we now recognise different schools or sections which had been hitherto unjustly ignored. The happy result has been an encouragement and a consequent revival of schools of thought which existed in various parts of the country but had been undeservedly thrown into the back ground. We are now able to rejoice that Your Excellency's Government has adopted the recommendation of the Board that Prakrit and Pali be recognised as subjects of examination under their control and guidance; the recognition thus afforded will serve to revive a well-merited interest in important branches of learning which have languished for centuries. It is significant that this action on the part of the Government has been immediately followed by gifts from private individuals for the promotion of these very branches of study. Anagarika Dharmapal of Ceylon who stands in the foremost rank of enlightened Buddhist ecclesiastics, has created an endowment fund of one thousand rupees for the encouragement of Pali studies. Sett Nagordas Purushottam Das, of Raopur in the far distant province of Katiwar, has placed at the disposal of the Board five gold medals for distribution among successful candidates in Jaina Grammar at the Title Examination in that subject. Sett Sharipchand Hukamchand of Indore has placed in our hands a sum of

three hundred and fifty rupees and has, with a commendable catholicity, directed that out of this money, scholarships are to be awarded only to non-Jaina students for proficiency in Jaina subjects ; he has further held out hopes that if the experiment is successful, he will create an endowment to place these scholarships on a permanent basis. It is a matter for distinct congratulation that encouragement should thus be afforded to workers in these neglected lines in the same way as to students of the familiar orthodox subjects of training ; for I feel convinced that there lie imbedded in classical works on Indian Philosophy, Sanskritik and Buddhistik, far-reaching principles of epistemology and metaphysics which will be found quite abreast, if not, actually in advance, of the profoundest speculations of Western investigators.

During the last year, the popularity of our examinations, judged by the number of candidates who have sought admission thereto and the demand for fresh centres in the most distant parts of the Indian Empire, has been well maintained. The actual number of candidates who entered appearance at the different examinations was 5665, of whom 2482 were declared successful by our examiners. In this connection, it is satisfactory to note that the levy of an examination

fee has not materially affected the number of admissions. On the other hand, although we had as many as forty centres of examinations, fresh centres had to be opened in places so far apart as Silchar in Assam, Tiluri in Bankura, and Motihari and Chapra in Tirhut. In the two last-named places, we have been constrained to yield to persistent applications for the establishment of new centres, although the foundation of a separate Board for Sanskrit Examinations in the new Province of Behar and Orissa is well within sight. It is, I think, a striking testimony to the excellence of our work and to the high reputation of our Diplomas, that we should be repeatedly pressed to hold our examinations in places far beyond the territorial limits of our jurisdiction. One remarkable incident, which happened not many weeks ago, deserves prominent mention as an illustration of this unquestionable fact. In a place, which shall be nameless for obvious reasons, within the United Provinces of Agra and Oudh, the local authorities, educational and executive, were determined that our examinations should not be held there as on previous occasions; I have not the remotest desire to criticise their decision, much less to blame them in any way for the view they adopted; not unnaturally, they preferred that the students resident within their jurisdiction

should appear at the examinations held under the auspices of their Local Government. We promptly yielded to the wishes of the local authorities as soon as they were communicated to us and we decided to discontinue the examinations at that centre. But what was the result? The candidates, who numbered several hundred, travelled to a centre within our jurisdiction at considerable inconvenience and sacrifice, and actually sat for our examinations, as they were determined to prove themselves worthy of our Diplomas. It is superfluous to add that strenuous endeavour will be made to maintain our high standards and the consequent special value set on our Diplomas.

I feel it would not be appropriate to allow this occasion to pass without even a brief reference to two other topics of considerable importance to the cause of the maintenance and promotion of Sanskrit learning in this Presidency. It may be in the recollection of our friends that more than two years ago a Committee sat under the direction of Your Excellency's Government with a view to devise means which might usefully be adopted in that behalf. Amongst various other recommendations, to which detailed reference is not necessary for our present purpose, there was one of a fundamental character, which has been provisionally accepted by the Government, I

mean, the recommendation that pecuniary grants should be periodically made to distinguished Pandits who have devoted themselves to the spread of Sanskrit learning, and who are, at present, or were, till recently, engaged in the work of investigation or instruction. A sum of ten thousand rupees has been set apart for this purpose for distribution during the financial year which is now about to close. We cannot fail to recognise, in the fullest measure, the deep and genuine interest taken by the Government in the welfare of our Pandits, when we realise that so handsome a grant has been made for this object, at a time when the utmost economy is essential in every direction, so that all available surplus may be applied for the protection of that mighty and world-wide empire, of which, we all, whether Sanskritists or non-Sanskritists, are proud to be the citizens. The question of preparation of a scheme for distribution of the sum mentioned was accordingly referred to our Board by the Education Department. In response to this request, the Board have elaborately discussed the matter from all possible points of view and have submitted their recommendations. We have considered the respective claims of Pandits from different parts of the country, as also the claims to recognition of various branches of learning. But there was one

principle which we rejected without hesitation ; we found it impossible to give effect to the suggestion that every Pandit who maintained a Tol should participate in the grant. Apart from other objections to the adoption of a course, which ignores the efficiency and the qualifications of the recipients, there was the patent objection that the grant would be entirely frittered away without appreciable benefit to any of the numerous claimants. The Board consequently decided to base their recommendations mainly on the following principles. In the first place, a substantial grant should be made to the most eminent Pandits in the country, as to whose status, qualifications, and services in the cause of Sanskrit learning, there is no room for possible controversy. In the second place, grants of smaller amounts should be made to scholars of the second rank, and amongst them preference should be given to those who have maintained assistants to secure efficiency of instruction, and have also housed and fed their pupils according to the time-honoured custom prevalent for generations in Nadia, Mithila and Benares. In the third place, grants should be made to scholars in backward localities, who receive little or no encouragement or pecuniary help from the neighbourhood where they are compelled to carry on their work, and yet, as

judged by the results of our examinations; have proved themselves competent professors. In the fourth place, in the distribution of the grant taken as a whole, balance should be evenly maintained, as far as practicable, between the Pandits of Eastern Bengal and Western Bengal. With reference to the last standpoint, the Board fully appreciated that their recommendations would be keenly scrutinised, and they were not disappointed when they found that as the result of their proposals, the Pandits of Eastern Bengal had on the whole been awarded more than the Pandits of Western Bengal, a position attributable, in some measure, possibly to the circumstance that the Pandits of Eastern Bengal had fewer representatives on the Board than the Pandits of Western Bengal. I disclaim the virtue of perfection for our recommendations, which are of a purely tentative character, and, if accepted, is intended to be operative only for the current financial year. But I do claim that we have performed our initial task with scrupulous care and have endeavoured to be just to the best of our lights; the future alone can show how far the list will stand the test of fair criticism. Meanwhile, our recommendations are before the Government, and the Pandits anxiously look forward to the early distribution of the long expected grants, when they will be able to

address your Excellency in the beautiful words of the poet.

नाकारमुद्भसि नैव विकस्यसे त्वं
 दित्सां न सूचयसि सुखसि सत्फलानि ।
 निःशब्द वर्षषष्मिवाद्भुधरस्य राजन्
 संलक्ष्यते फलत एव तव प्रसादः ॥

There remains but one other matter upon which I desire to dwell for a moment before I bring this address to a close. You will all be deeply gratified to hear that in the course of the last twelve months, the Government of Bengal have raised the annual grant, hitherto made for the benefit of students of Law and Logic at Nabadwip, from three thousand six hundred Rupees to six thousand Rupees. It is also a source of great satisfaction to all of us that our sympathetic friend, the Director of Public Instruction, found time, notwithstanding the pressure of other engagements, to pay a visit to that ancient seat of learning and thus acquainted himself first hand with its present condition. One important consequence of his visit has been that negotiations have already been set on foot for the restoration of the Pacca Tol established many years ago by Babu Lal, a wealthy and enlightened Marwari merchant, at the instance of that noted logician, Prasannakumar Tarkaratna. All true friends of Sanskrit learning in this Presidency will

rejoice that the attention of the Government has thus been directed afresh to the pressing needs of the Pandits of Navadwip. I do not pretend to possess the ability or the learning requisite for an adequate review, in a moderate compass, of the lost glories of Navadwip as the foremost intellectual centre in Bengal during centuries now long past. But I am not without hope that my erudite friend Dr. Satischandra Vidyabhushan, who himself hails from Navadwip, will some day unravel to us the history of the many generations of professors who shed lustre upon its famous academies and attracted pupils from the remotest corners of India. Meanwhile, let me emphasise most earnestly the cardinal importance of a movement to keep alive the rapidly disappearing intellectual traditions of Navadwip, which date back to at least the commencement of the twelfth century, when the Court of Lakshman Sen was adorned by profound scholars like Halayudha, Pasupati and Sulapani. When we look back through ages, the memory of which has all but faded away, we find that in the fifteenth century, the isolated academies had grown in number and reputation and had become a University, like the two famous older Universities of Behar, the Buddhistic University of Vikramasila and the Brahmanic University of Mithila. It was here at Navadwip that

towards the middle of the fifteenth century, flourished Vasudeb Sarbabhauma, who accomplished a truly astonishing feat when, Prometheus-like, he brought away from his jealous preceptor, the celebrated Pakshadhar Misra of Mithila, the entire text of Tattwa Chintamani and Kusumanjali, which he had engraved, not, indeed, on tangible rolls of parchment but on the invisible tablet of his memory. Vasudeb Sarbabhauma, himself in the foremost rank of scholars, was peculiarly fortunate in his pupils; for amongst them he was able to reckon four epoch-making men, each of whom has permanently revolutionised the course of thought and speculation in his own special domain, I mean, Raghunath Siromani, the highest authority on Modern Logic, Raghunandan, the last of the great authoritative expounders of the Bengal School of Hindu law and ritual, Krishnananda Agambagis, the first and still the foremost amongst the expounders of the mysticism of the Tantras in Bengal, and unquestionably the greatest of all, the inspired Chaitanya, the founder of Vaisnavism and the most illustrious apostle of social reform in these Provinces. It is no wonder that men of such intellectual and moral calibre, left successors who sedulously preserved the brilliant radiance of the sacred lamp of learning and faithfully transmitted it

from generation to generation, men like Mathuranath, Jagadish, Gadadhar and Viswanath. But to our infinite regret, no less than to our immeasurable detriment, the intellectual giants who flourished at Navadvip, even within living memory, and were the true pillars of Hindu Society, have all but passed away, without adequate support, encouragement and recognition. Let me fervently express the hope that Your Excellency, who has been so truly a friend of the Pandits and of the ancient learning treasured up by them, may some day visit the remains of this once famous seat of learning and that during your enlightened administration some beneficent measure may be devised and initiated with a view to secure the revival of the intellectual glory of what is still the pride of Bengal.
